

=> file reg
FILE 'REGISTRY'
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=> d his

FILE 'REGISTRY'
ACT LEE157/Q

L1 STR
L2 SCR 2043
L3 QUE L1 AND L2

L4 33 S L3

FILE 'HCAPLUS'

L5 268124 S LI ?/AU
L6 453 S VARANASI ?/AU
L7 14 S L5 AND L6
SEL L7 1-14 RN

FILE 'REGISTRY'

L8 73 S E1-E73
L9 28 S L8 AND PMS/CI
L10 2 S L9 AND N/ELS
L11 6605 S L3 FUL
DEL LEE157/Q
SAV L11 LEE157/A

FILE 'LREGISTRY'

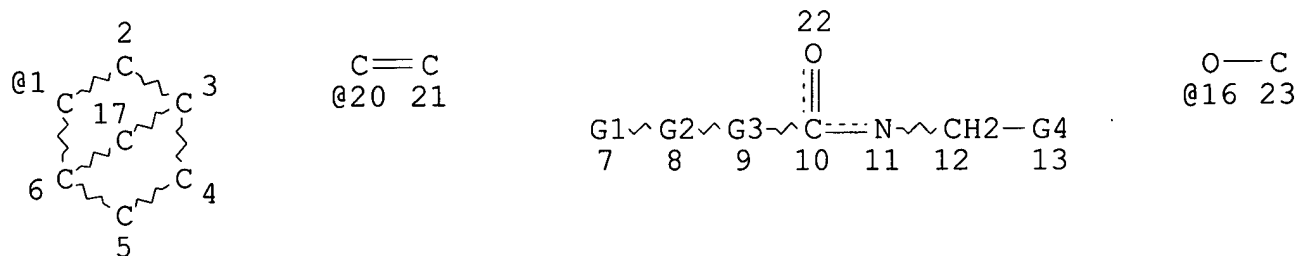
E NORBORNENE/CN
L12 1 S E3

FILE 'REGISTRY'

L13 31604 S 103.10.3/RID
L14 7 S L11 AND L13
L15 119822 S C5-C5/ES
L16 STR L1
L17 0 S L16 SSS SAM SUB=L11
L18 0 S L16 SSS FUL SUB=L11

FILE 'REGISTRY'

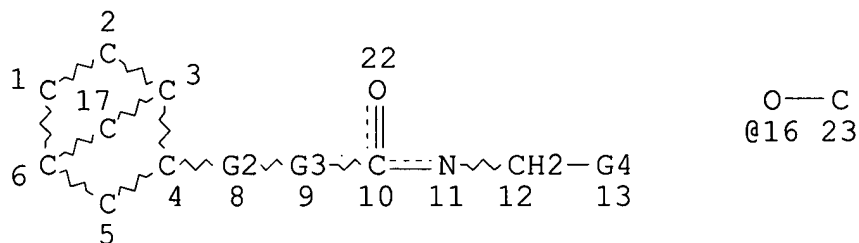
=> d 118 que stat
L1 STR



VAR G1=20/1
REP G2=(0-3) A
REP G3=(0-5) C
VAR G4=OH/16
NODE ATTRIBUTES:
NSPEC IS RC AT 23
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE
L2 SCR 2043
L11 6605 SEA FILE=REGISTRY SSS FUL L1 AND L2
L16 STR



REP G2=(0-3) A
REP G3=(0-5) C
VAR G4=OH/16
NODE ATTRIBUTES:
NSPEC IS RC AT 23
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE
L18 0 SEA FILE=REGISTRY SUB=L11 SSS FUL L16

100.0% PROCESSED 185 ITERATIONS
SEARCH TIME: 00.00.01

0 ANSWERS

=> file reg
FILE 'REGISTRY'
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=> d his

FILE 'REGISTRY'

ACT LEE157/Q

L1 STR
L2 SCR 2043
L3 QUE L1 AND L2

L4 33 S L3

FILE 'HCAPLUS'

L5 268124 S LI ?/AU
L6 453 S VARANASI ?/AU
L7 14 S L5 AND L6
SEL L7 1-14 RN

FILE 'REGISTRY'

L8 73 S E1-E73
L9 28 S L8 AND PMS/CI
L10 2 S L9 AND N/ELS
L11 6605 S L3 FUL
DEL LEE157/Q
SAV L11 LEE157/A

FILE 'LREGISTRY'

E NORBORNENE/CN
L12 1 S E3

FILE 'REGISTRY'

L13 31604 S 103.10.3/RID
L14 7 S L11 AND L13
L15 119822 S C5-C5/ES
L16 STR L1
L17 0 S L16 SSS SAM SUB=L11
L18 0 S L16 SSS FUL SUB=L11
L19 527 S 923-02-4/CRN
L20 3501 S 924-42-5/CRN
L21 2596 S L11 NOT (L19 OR L20)

L22 285 S L21 NOT 2<NC

FILE 'HCA'

L23 340 S L22
 L24 2633 S (NEG# OR NEGATIV?) (3A) (PHOTORESIST? OR PHOTO(2A)RESIST?
 L25 3652 S (NEG# OR NEGATIV?) (2A)WORK?
 L26 85763 S RESIST OR RESISTS OR PHOTORESIST?
 L27 2 S L23 AND L24
 L28 4 S L23 AND L25 AND L26
 L29 23 S L23 AND L26
 L30 QUE NEG# OR NEGATIV?
 L31 5 S L29 AND L30
 L32 5526 S L11
 L33 4 S L32 AND L24
 L34 7 S L32 AND L25 AND L26
 L35 104 S L32 AND L26
 L36 12 S L35 AND L30

FILE 'REGISTRY'

L37 4009 S L11 NOT L21
 L38 247 S L37 NOT 2<NC

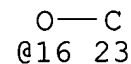
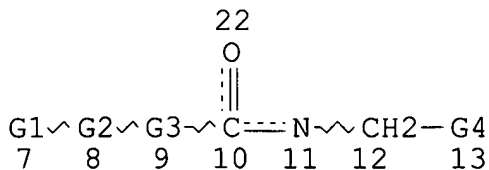
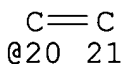
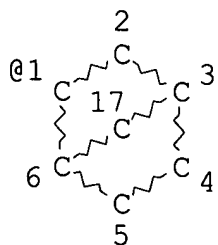
FILE 'HCA'

L39 1020 S L38
 L40 4114 S L37
 L41 1 S L39 AND L24
 L42 3 S L40 AND L24
 L43 5 S L40 AND L25 AND L26
 L44 61 S L40 AND L26
 L45 7 S L44 AND L30
 L46 12 S L27 OR L28 OR L31 OR L33 OR L34 OR L36 OR L41 OR L42 OR
 L47 18 S L29 NOT L46

FILE 'REGISTRY'

=> d l11 que stat

L1 STR



VAR G1=20/1
REP G2=(0-3) A
REP G3=(0-5) C
VAR G4=OH/16
NODE ATTRIBUTES:
NSPEC IS RC AT 23
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE
L2 SCR 2043
L11 6605 SEA FILE=REGISTRY SSS FUL L1 AND L2

100.0% PROCESSED 177273 ITERATIONS
SEARCH TIME: 00.00.02

6605 ANSWERS

=> file hca
FILE 'HCA'
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=> d 146 1-12 cbib abs hitstr hitind

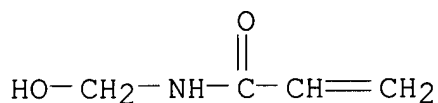
L46 ANSWER 1 OF 12 HCA COPYRIGHT 2005 ACS on STN
140:10756 Fabrication of ink-repellent patterns and of color filters by
ink-jet printing and liquid crystal displays therewith. Sakamoto,
Junichi; Iwata, Kenichi; Okada, Yoshikatsu (Canon Inc., Japan).
Jpn. Kokai Tokkyo Koho JP 2003345002 A2 20031203, 12 pp.
(Japanese). CODEN: JKXXAF. APPLICATION: JP 2002-155762 20020529.
AB In the process, **neg. resist** layers are
no sign of
multihyd-
compd.
IT 160109-42-2P, 2-Hydroxyethyl methacrylate-N-
methylolacrylamide-methyl methacrylate copolymer
(pigmented, filter layers; manuf. of ink-repellent patterns for
black matrixes and barrier ribs by photoimaging in F-contg. atm.)

→ Also, although onium salt is taught, it is being
used as polymerization initiator
not as PAG.

RN 160109-42-2 HCA
 CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with
 N-(hydroxymethyl)-2-propenamide and methyl 2-methyl-2-propenoate
 (9CI) (CA INDEX NAME)

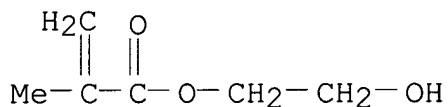
CM 1

CRN 924-42-5
 CMF C4 H7 N O2



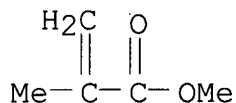
CM 2

CRN 868-77-9
 CMF C6 H10 O3



CM 3

CRN 80-62-6
 CMF C5 H8 O2



IC ICM G03F007-004
 ICS G02B005-20; G02F001-13; G02F001-1335; G03F007-038; G03F007-20;
 G03F007-40
 CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 Section cross-reference(s): 73, 76
 ST fluorine atm **resist** patterning ink repellency; LCD color
 filter ink jet printing; perfluoromethane atm patternwise exposure
 rib fabrication
 IT **160109-42-2P**, 2-Hydroxyethyl methacrylate-N-
 methylolacrylamide-methyl methacrylate copolymer

(pigmented, filter layers; manuf. of ink-repellent patterns for black matrixes and barrier ribs by photoimaging in F-contg. atm.)

L46 ANSWER 2 OF 12 HCA COPYRIGHT 2005 ACS on STN

139:140978 **Negative**-type light sensitive resin composition containing component prepared by Michael addition reaction. Takanashi, Hiroshi; Kudo, Tomoya; Obata, Takekazu (Tokyo Ohka Kogyo Co., Ltd., Japan). Ger. Offen. DE 10304631 A1 20030807, 26 pp. (German). CODEN: GWXXBX. APPLICATION: DE 2003-10304631 20030205. PRIORITY: JP 2002-28484 20020205.

AB A **neg.** type light sensitive resin compn. comprises a component (A), the product of the Michael addn. reaction between an amino group-contg. compd. $\text{H}_2\text{N}(\text{CH}_2\text{CH}_2\text{NH})_n\text{CH}_2\text{CH}_2\text{NH}_2$ [$n = 1-4$] and a polyethyleneglycol di(meth)acrylate $\text{H}_2\text{C}:\text{C}(\text{R}_1)\text{COC}(\text{CH}_2\text{CH}_2\text{O})_m\text{COC}(\text{R}_1):\text{CH}_2$ [$m = 4-14$; $\text{R}_1 = \text{H, methyl}$], a component (B), a binder polymer, a component (C), a photopolymn. initiator, and a component (D), a photopolymerizable ethylenic compd. The compn. is applicable to broad areas of printing plates, photomasks, CRT shadow masks, etc. The compn. shows water-resistance, acid etch-resistance, and development-durability.

IT **569362-51-2P**, N-Methylolacrylamide-pentaerythritol copolymer (photopolymerizable compd. in **neg.**-type light sensitive resin compn. contg. component prepd. by Michael addn. reaction)

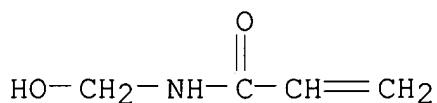
RN 569362-51-2 HCA

CN 2-Propenamamide, N-(hydroxymethyl)-, polymer with 2,2-bis(hydroxymethyl)-1,3-propanediol (9CI) (CA INDEX NAME)

CM 1

CRN 924-42-5

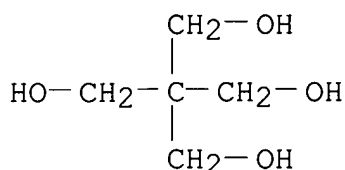
CMF C4 H7 N O2



CM 2

CRN 115-77-5

CMF C5 H12 O4

IT **64217-83-0**

(photopolymerizable component in **neg.**-type light sensitive resin compn. contg. component prepd. by Michael addn. reaction)

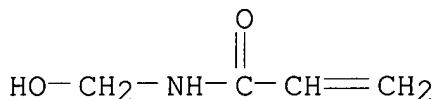
RN 64217-83-0 HCA

CN 2-Propenamide, N-(hydroxymethyl)-, polymer with N,N'-bis(methoxymethyl)urea (9CI) (CA INDEX NAME)

CM 1

CRN 924-42-5

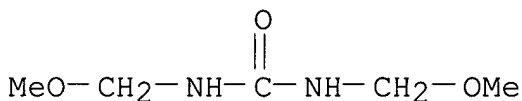
CMF C4 H7 N O2



CM 2

CRN 141-07-1

CMF C5 H12 N2 O3



IC ICM G03F007-004

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

ST **neg working** light sensitive resin compn
photosensitive polymer **photoresist**

IT Michael reaction

Negative photoresists

(**neg.**-type light sensitive resin compn. contg. component prepd. by Michael addn. reaction)

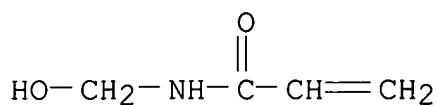
IT Photomasks (lithographic masks)

Shadow masks

- (**neg.**-type light sensitive resin compn. contg.
component prepd. by Michael addn. reaction for manufg.)
- IT 105521-74-2, Gohsenol GH20 195889-45-3, PVA 505
(binder in **neg.**-type light sensitive resin compn.
contg. component prepd. by Michael addn. reaction)
- IT 569362-45-4P, Polyethyleneglycol diacrylate-tetraethylenepentaamine
copolymer 569362-46-5P 569362-47-6P 569362-48-7P
569362-49-8P
(in **neg.**-type light sensitive resin compn. contg.
component prepd. by Michael addn. reaction)
- IT **569362-51-2P**, N-Methylolacrylamide-pentaerythritol copolymer
(photopolymerizable compd. in **neg.**-type light sensitive
resin compn. contg. component prepd. by Michael addn. reaction)
- IT **64217-83-0**
(photopolymerizable component in **neg.**-type light
sensitive resin compn. contg. component prepd. by Michael addn.
reaction)
- IT 24650-42-8
(photopolymn. initiator in **neg.**-type light sensitive
resin compn. contg. component prepd. by Michael addn. reaction)
- IT 569362-50-1P
(water-sol. binder polymer in **neg.**-type light sensitive
resin compn. contg. component prepd. by Michael addn. reaction)
- L46 ANSWER 3 OF 12 HCA COPYRIGHT 2005 ACS on STN
138:161160 Color filters and production methods therefor and liquid
crystal elements therewith. Nishi, Akio (Canon Inc., Japan). Jpn.
Kokai Tokkyo Koho JP 2003043238 A2 20030213, 9 pp. (Japanese).
CODEN: JKXXAF. APPLICATION: JP 2001-226951 20010727.
- AB A prodn. method includes forming resin black matrixes having columns
and rows of openings on a transparent substrate, forming hollows on
the sections between the neighboring openings in the columns, and
filling a column continuously with the same color ink. The hollows
suppress the unevenness in the color parts. Thus, glass was spin
coated with V 259 BK 739P (a **neg. resist** ink),
exposed to light using a mask to form a pattern, developed to form a
black matrix pattern having openings and hollows, ink jet printed
with thermosetting inks contg. red, green, and blue dyes, and cured
to prep. a color filter.
- IT **160109-42-2**, Hydroxyethyl methacrylate-N-methylolacrylamide-
methyl methacrylate copolymer
(inks; color filters and prodn. methods therefor and liq. crystal
elements therewith)
- RN 160109-42-2 HCA
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with
N-(hydroxymethyl)-2-propenamide and methyl 2-methyl-2-propenoate
(9CI) (CA INDEX NAME)

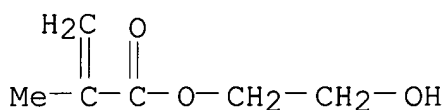
CM 1

CRN 924-42-5
 CMF C4 H7 N O2



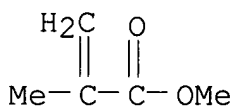
CM 2

CRN 868-77-9
 CMF C6 H10 O3



CM 3

CRN 80-62-6
 CMF C5 H8 O2



- IC ICM G02B005-20
 ICS B41J002-01; C09D011-00; G02B005-00; G02F001-1335; G03F007-11;
 G03F007-40
- CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
- IT Electric conductors
 Optical filters
Photoresists
 Pigments, nonbiological
Resists
 (color filters and prodn. methods therefor and liq. crystal
 elements therewith).
- IT **160109-42-2**, Hydroxyethyl methacrylate-N-methylolacrylamide-
 methyl methacrylate copolymer
 (inks; color filters and prodn. methods therefor and liq. crystal

elements therewith)

L46 ANSWER 4 OF 12 HCA COPYRIGHT 2005 ACS on STN

136:191809 Optical element, its manufacture by ink-jet method, and liquid crystal element. Okada, Yoshikatsu; Iwata, Kenichi; Sakamoto, Junichi; Shiba, Shoji; Takano, Katsuhiko; Okada, Takeshi; Taniuchi, Hiroshi; Nishida, Taketo (Canon Inc., Japan). Jpn. Kokai Tokkyo Koho JP 2002055218 A2 20020220, 13 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-240570 20000809.

AB The element, comprising a support having barrier ribs made of resin compn. and pixels, is manufd. by (1) forming **neg.** photosensitive resin layer on the substrate, (2) patternwise exposing the resin compn. and removing the upper part of the resin at the unexposed area, (3) processing the resin compn. with F, (4) completely removing the resin compn. at the unexposed area for barrier rib formation, and (5) adding ink between the barrier rib by ink-jet method for pixel formation. The manufd. optical element and liq. crystal element using the it as a color filter are also claimed. As the upper part of the barrier rib has an ink repelling property and the under part has ink affinity, color contamination and white defect of the element are prevented.

IT **160109-42-2**, 2-Hydroxyethyl methacrylate-methyl methacrylate-N-methylolacrylamide copolymer
(ink compn.; manuf. of color filter by ink-jet method using fluorine-treated **resist** as barrier rib)

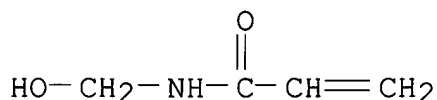
RN 160109-42-2 HCA

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with N-(hydroxymethyl)-2-propenamide and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 924-42-5

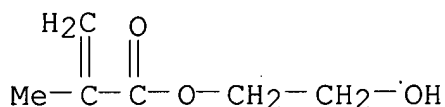
CMF C4 H7 N O2



CM 2

CRN 868-77-9

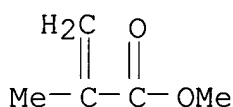
CMF C6 H10 O3



CM 3

CRN 80-62-6

CMF C5 H8 O2



IC ICM G02B005-20

ICS B41J002-01; G02B005-00; G02F001-1335; H05B033-10; H05B033-12;
H05B033-14CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)

Section cross-reference(s): 73

IT **Resists**(neg.-working; manuf. of color filter by
ink-jet method using fluorine-treated **resist** as barrier
rib)IT **160109-42-2**, 2-Hydroxyethyl methacrylate-methyl
methacrylate-N-methylolacrylamide copolymer(ink compn.; manuf. of color filter by ink-jet method using
fluorine-treated **resist** as barrier rib)

IT 299398-75-7, V 259

(manuf. of color filter by ink-jet method using fluorine-treated
resist as barrier rib)

IT 75-73-0

(manuf. of color filter by ink-jet method using fluorine-treated
resist as barrier rib)

L46 ANSWER 5 OF 12 HCA COPYRIGHT 2005 ACS on STN

133:274344 Thermally reactive near infrared absorption polymer coatings,
method of preparing and methods of use. Nguyen, My T. (American Dye
Source, Inc., Can.). U.S. US 6124425 A 20000926, 16 pp.
(English). CODEN: USXXAM. APPLICATION: US 1999-275032 19990318.AB Provided here are novel polymeric coating materials for direct
digital imaging by laser. More specifically the novel coating
materials are thermally reactive near IR absorption polymers
designed for use with near IR laser imaging devices. This invention
further extends to the prepn. and methods of use of the novelno
multihydroxy
compd.

materials. The invention is particularly useful in the prepn. of lithog. printing plates for computer-to-plate and digital-offset-press technologies. The invention extends to **photoresist** applications, to rapid prototyping of printed circuit boards and to chem. sensor development.

IT **28015-39-6**, Methyl methacrylate-N-(methoxymethyl)methacrylamide copolymer
(prepn. of **neg.** thermal printing plate for direct digital laser imaging using)

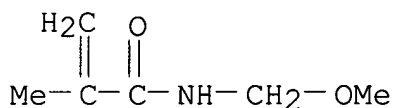
RN 28015-39-6 HCA

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 3644-12-0

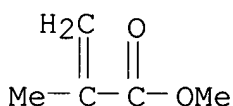
CMF C6 H11 N O2



CM 2

CRN 80-62-6

CMF C5 H8 O2



IT **297174-00-6P 297174-03-9P 297174-06-2P**
297174-07-3P 297174-09-5P 297174-11-9P
297174-13-1P 297174-15-3P 297174-17-5P
297174-20-0P

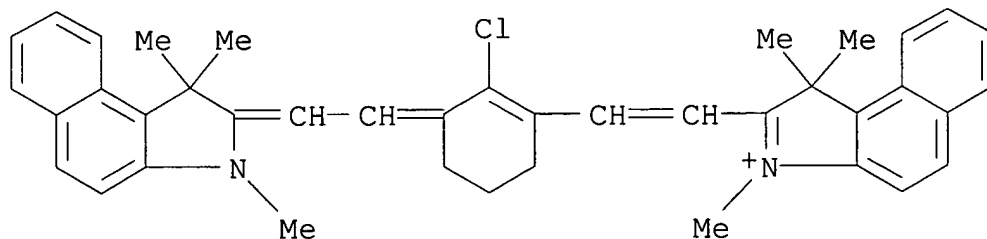
(synthesis of near-IR absorption polymer thermal coatings for direct digital imaging by laser)

RN 297174-00-6 HCA

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, chloride, compd. with 4-ethenylpyridine polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 297173-98-9
CMF C40 H40 Cl N2 . Cl



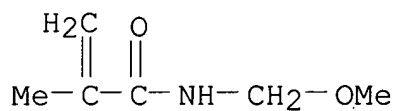
● Cl⁻

CM 2

CRN 297173-99-0
CMF (C7 H7 N . C6 H11 N O2) x
CCI PMS

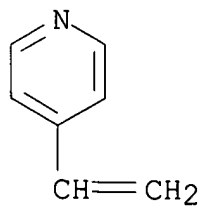
CM 3

CRN 3644-12-0
CMF C6 H11 N O2



CM 4

CRN 100-43-6
CMF C7 H7 N



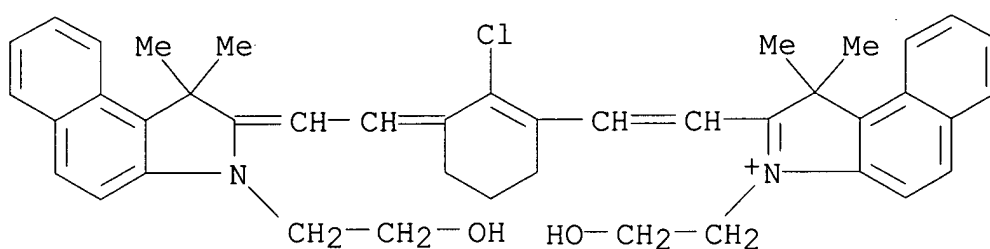
RN 297174-03-9 HCA

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, chloride, compd. with 4-ethenylpyridine polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 297174-02-8

CMF C42 H44 Cl N2 O2 . Cl



● Cl⁻

CM 2

CRN 297173-99-0

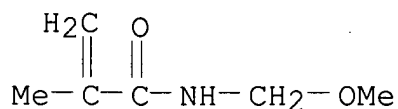
CMF (C7 H7 N . C6 H11 N O2)x

CCI PMS

CM 3

CRN 3644-12-0

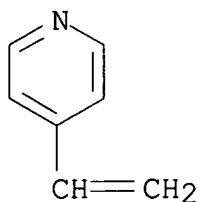
CMF C6 H11 N O2



CM 4

CRN 100-43-6

CMF C7 H7 N



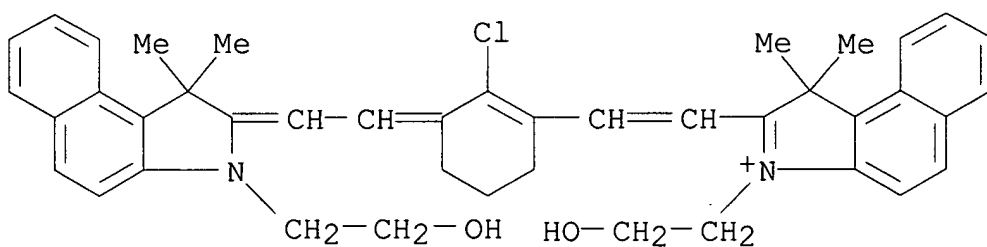
RN 297174-06-2 HCA

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[[1,3-dihydro-3-(2-hydroxyethyl)-1,1-dimethyl-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-(2-hydroxyethyl)-1,1-dimethyl-, chloride, compd. with butyl 2-methyl-2-propenoate polymer with 4-ethenylpyridine and N-(methoxymethyl)-2-methyl-2-propenamide (9CI)
(CA INDEX NAME)

CM 1

CRN 297174-02-8

CMF C42 H44 Cl N2 O2 . Cl

● Cl⁻

CM 2

CRN 297174-05-1

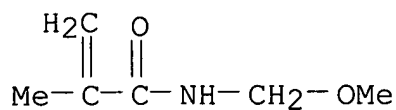
CMF (C8 H14 O2 . C7 H7 N . C6 H11 N O2) x

CCI PMS

CM 3

CRN 3644-12-0

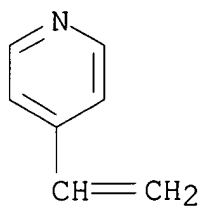
CMF C6 H11 N O2



CM 4

CRN 100-43-6

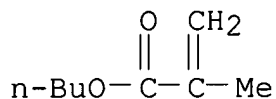
CMF C7 H7 N



CM 5

CRN 97-88-1

CMF C8 H14 O2



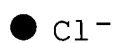
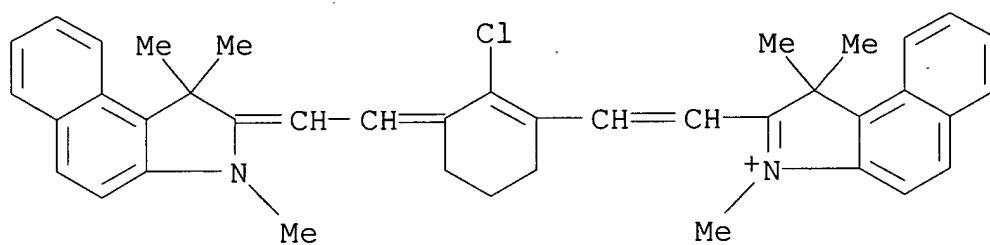
RN 297174-07-3 HCA

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1,3-trimethyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1,3-trimethyl-, chloride, compd. with 2-chloroethanol and 4-ethenylpyridine polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

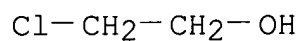
CRN 297173-98-9

CMF C40 H40 Cl N2 . Cl



CM 2

CRN 107-07-3
CMF C2 H5 Cl O

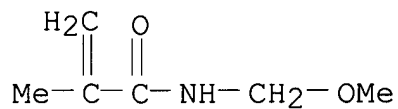


CM 3

CRN 297173-99-0
CMF (C7 H7 N . C6 H11 N O2) x
CCI PMS

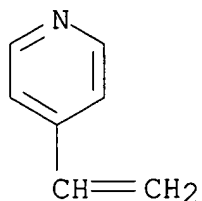
CM 4

CRN 3644-12-0
CMF C6 H11 N O2



CM 5

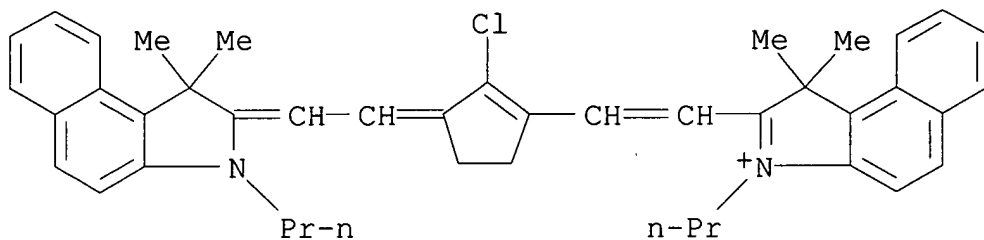
CRN 100-43-6
CMF C7 H7 N



RN 297174-09-5 HCA
 CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1-dimethyl-3-propyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1,1-dimethyl-3-propyl-, chloride, compd. with 4-ethenylpyridine polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 297174-08-4
 CMF C43 H46 Cl N2 . Cl



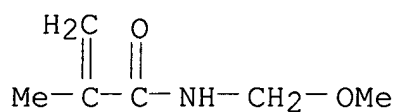
● Cl⁻

CM 2

CRN 297173-99-0
 CMF (C7 H7 N . C6 H11 N O2)x
 CCI PMS

CM 3

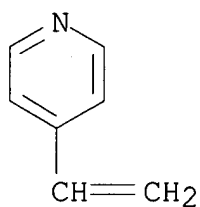
CRN 3644-12-0
 CMF C6 H11 N O2



CM 4

CRN 100-43-6

CMF C7 H7 N



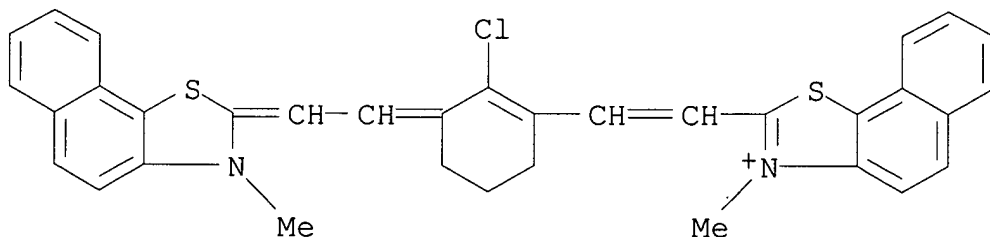
RN 297174-11-9 HCA

CN Naphtho[2,1-d]thiazolium, 2-[2-[2-chloro-3-[(3-methylnaphtho[2,1-d]thiazol-2(3H)-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-methyl-, chloride, compd. with 4-ethenylpyridine polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 297174-10-8

CMF C34 H28 Cl N2 S2 . Cl

● Cl⁻

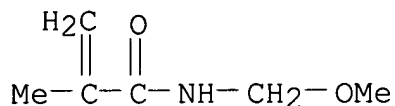
CM 2

CRN 297173-99-0

CMF (C7 H7 N . C6 H11 N O2)x
CCI PMS

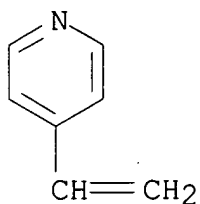
CM 3

CRN 3644-12-0
CMF C6 H11 N O2



CM 4

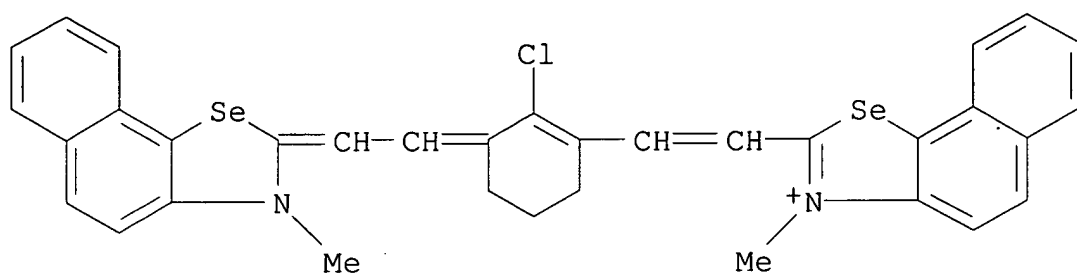
CRN 100-43-6
CMF C7 H7 N



RN 297174-13-1 HCA
CN Naphtho[2,1-d]selenazolium, 2-[2-[2-chloro-3-[(3-methylnaphtho[2,1-d]selenazol-2(3H)-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-methyl-, chloride, compd. with 4-ethenylpyridine polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 297174-12-0
CMF C34 H28 Cl N2 Se2 . Cl



CM 2

CRN 297173-99-0

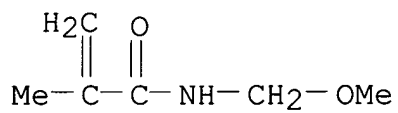
CMF (C7 H7 N . C6 H11 N O2) x

CCI PMS

CM 3

CRN 3644-12-0

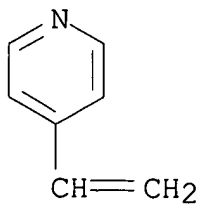
CMF C6 H11 N O2



CM 4

CRN 100-43-6

CMF C7 H7 N



RN 297174-15-3 HCA

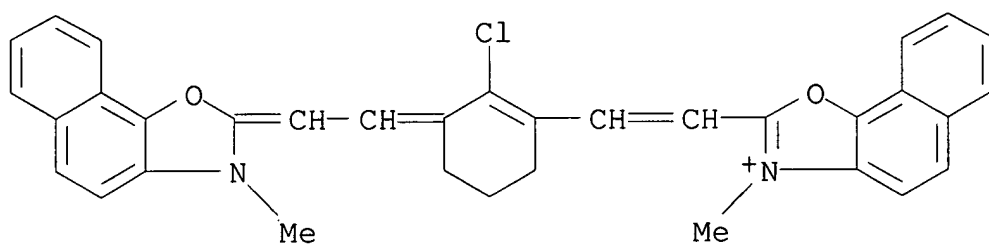
CN Naphth[2,1-d]oxazolium, 2-[2-[2-chloro-3-[(3-methylnaphth[2,1-

d]oxazol-2(3H)-ylidene)ethylidene]-1-cyclohexen-1-yl]ethenyl]-3-methyl-, chloride, compd. with 4-ethenylpyridine polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 297174-14-2

CMF C34 H28 Cl N2 O2 . Cl



● Cl⁻

CM 2

CRN 297173-99-0

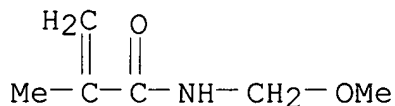
CMF (C7 H7 N . C6 H11 N O2) x

CCI PMS

CM 3

CRN 3644-12-0

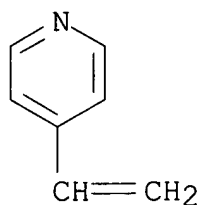
CMF C6 H11 N O2



CM 4

CRN 100-43-6

CMF C7 H7 N



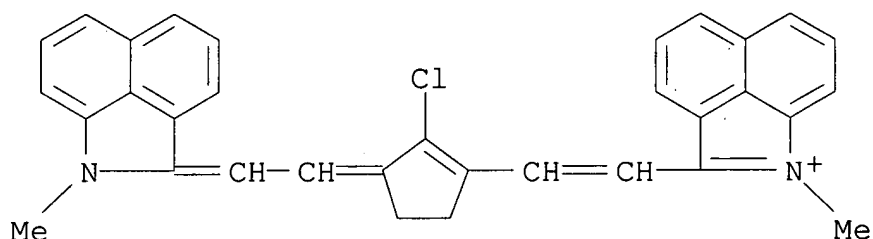
RN 297174-17-5 HCA

CN Benz[cd]indolium, 2-[2-[2-chloro-3-[(1-methylbenz[cd]indol-2(1H)-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1-methyl-, chloride, compd. with 4-ethenylpyridine polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 297174-16-4

CMF C33 H26 Cl N2 . Cl



● Cl⁻

CM 2

CRN 297173-99-0

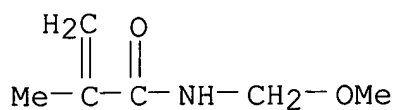
CMF (C7 H7 N . C6 H11 N O2)x

CCI PMS

CM 3

CRN 3644-12-0

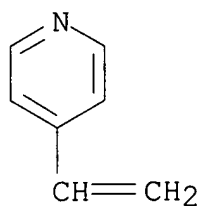
CMF C6 H11 N O2



CM 4

CRN 100-43-6

CMF C7 H7 N



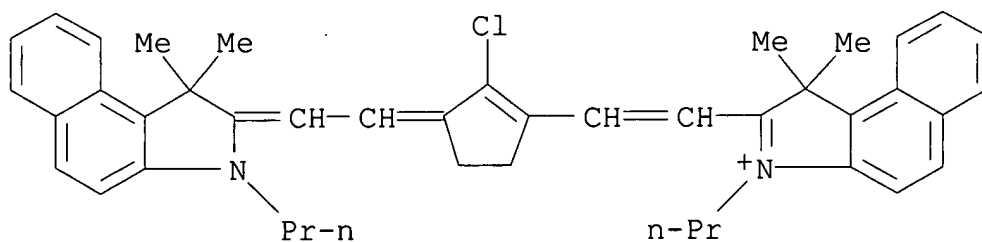
RN 297174-20-0 HCA

CN 1H-Benz[e]indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,1-dimethyl-3-propyl-2H-benz[e]indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1,1-dimethyl-3-propyl-, chloride, compd. with butyl 2-methyl-2-propenoate polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate and N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 297174-08-4

CMF C43 H46 Cl N2 . Cl

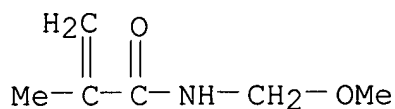
● Cl⁻

CM 2

CRN 297174-19-7
 CMF (C8 H15 N O2 . C8 H14 O2 . C6 H11 N O2)x
 CCI PMS

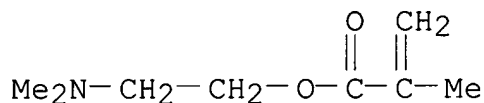
CM 3

CRN 3644-12-0
 CMF C6 H11 N O2



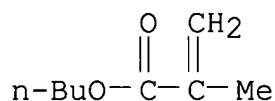
CM 4

CRN 2867-47-2
 CMF C8 H15 N O2



CM 5

CRN 97-88-1
 CMF C8 H14 O2



IC ICM C08G073-00

INCL 528422000

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Coating materials

Imaging

Lithographic plates

Photoresists

Printed circuit boards

Sensors

(prepn. of chem. sensor for measuring electrode cond. in direct

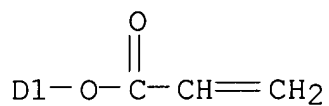
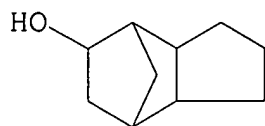
- digital laser imaging)
- IT 26355-01-1, Methyl methacrylate-2-hydroxyethyl methacrylate copolymer **28015-39-6**, Methyl methacrylate-N-(methoxymethyl)methacrylamide copolymer 139301-16-9 (prepn. of **neg.** thermal printing plate for direct digital laser imaging using)
- IT 9016-83-5DP, SD 140A, ethers with cyanine dyes 110123-09-6DP, ethers with cyanine dyes 134127-48-3DP, ethers with hydroxy-contg. polymers 247248-90-4DP, ethers with hydroxy-contg. polymers **297174-00-6P 297174-03-9P 297174-06-2P 297174-07-3P 297174-09-5P 297174-11-9P 297174-13-1P 297174-15-3P 297174-17-5P 297174-18-6P 297174-20-0P** 297752-34-2DP, ethers with cyanine dyes (synthesis of near-IR absorption polymer thermal coatings for direct digital imaging by laser)
- L46 ANSWER 6 OF 12 HCA COPYRIGHT 2005 ACS on STN 132:187644 Polymer, chemically amplified **negative-working resist** containing same, and **resist** pattern formation. Iwasa, Shigeyuki; Maeda, Katsumi; Nakano, Kaichiro; Hasegawa, Etsuo (NEC Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2000063433 A2 20000229, 35 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-229154 19980813.
- AB The title polymer has the general formula $[CH_2CR_1(CO_2R_2CO_2H)]_x[CH_2CR_5(CONHCH_2OR_6)]_z$ (I), $[CH_2CR_3(CO_2R_4OH)]_y[CH_2CR_5(CONHCH_2OR_6)]_z$ (II) or $[CH_2CR_1(CO_2R_2CO_2H)]_x[CH_2CR_3(CO_2R_4OH)]_y[CH_2CR_5(CONHCH_2OR_6)]_z$ (III) ($R_1, R_3, R_5 = H$ or Me ; $R_2, R_4 = C_7-18$ alkylene having a cross-linked cyclic hydrocarbon group; $R_6 = H$ or C_1-12 alkyl; $x + z = 1$, $0 < x < 1$, and $0 < z < 1$ in I; $y + z = 1$, $0 < y < 1$, and $0 < z < 1$ in II; $x + y + z = 1$, $0 < x < 1$, $0 < y < 1$, and $0 < z < 1$ in III) and a wt. av. mol. wt. of 1000-500,000. The title **resist** comprises the polymer and a photoacid generator and is coated on a substrate, patternwise exposed to light of wavelength 180-220 nm, heat-treated, and developed to form a **resist** pattern. The polymer shows high transparency toward short wavelength light of .ltoreq.220 nm such as ArF excimer laser beams and improved dry etch resistance.
- IT **259528-63-7P 259528-65-9P 259528-66-0P 259528-67-1P** (chem. amplification-type **photoresist** contg. acrylic polymer and photoacid generator)
- RN 259528-63-7 HCA
- CN 1,4:5,8-Dimethanonaphthalene-2-carboxylic acid, decahydro-6(or 7)-[(1-oxo-2-propenyl)oxy]-, polymer with N-(hydroxymethyl)-2-propenamide and octahydrohydroxy-4,7-methano-1H-inden-1(or 2)-yl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 217654-90-5

CMF C13 H18 O3

CCI IDS

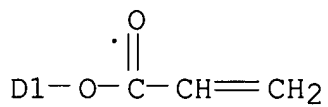
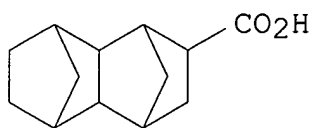


CM 2

CRN 195398-52-8

CMF C16 H20 O4

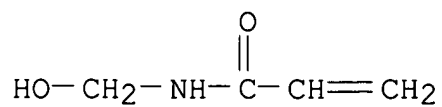
CCI IDS



CM 3

CRN 924-42-5

CMF C4 H7 N O2



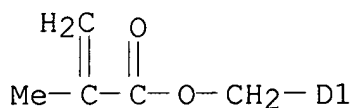
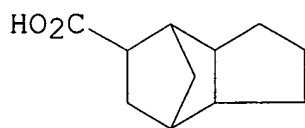
RN 259528-65-9 HCA
CN 4,7-Methano-1H-indene-5-carboxylic acid, octahydro[[(2-methyl-1-oxo-2-propenyl)oxy)methyl]-, polymer with N-(hydroxymethyl)-2-propenamide and octahydro-5(or 6)-hydroxy-4,7-methano-1H-inden-1(2 or 3)-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 259528-64-8

CMF C16 H22 O4

CCI IDS

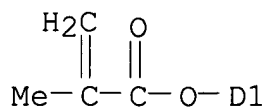
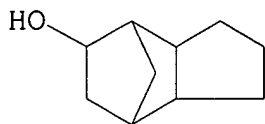


CM 2

CRN 220138-05-6

CMF C14 H20 O3

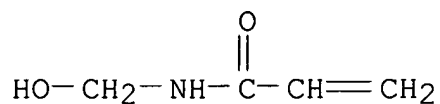
CCI IDS



CM 3

CRN 924-42-5

CMF C4 H7 N O2



RN 259528-66-0 HCA

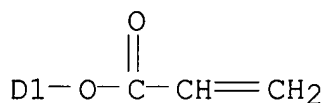
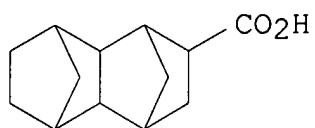
CN 1,4:5,8-Dimethanonaphthalene-2-carboxylic acid, decahydro-6(or 7)-[(1-oxo-2-propenyl)oxy]-, polymer with N-(methoxymethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 195398-52-8

CMF C16 H20 O4

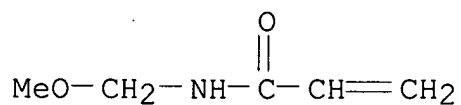
CCI IDS



CM 2

CRN 3644-11-9

CMF C5 H9 N O2



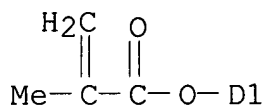
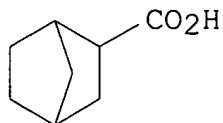
RN 259528-67-1 HCA

CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 5(or 6)-[(2-methyl-1-oxo-2-propenyl)oxy]-, polymer with N-(methoxymethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

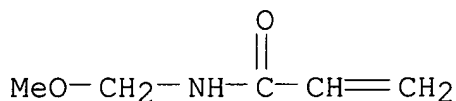
CRN 210641-03-5

CMF C12 H16 O4
CCI IDS



CM 2

CRN 3644-11-9
CMF C5 H9 N O2



IC ICM C08F020-18
ICS C08F020-28; C08F020-36; C08L033-06; C08L033-26; G03F007-038;
H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)
Section cross-reference(s): 38

ST chem amplification **resist** photoacid generator; alicyclic
acrylic polymer **neg photoresist**

IT **Negative photoresists**
(chem. amplification-type **photoresist** contg. acrylic
polymer and photoacid generator)

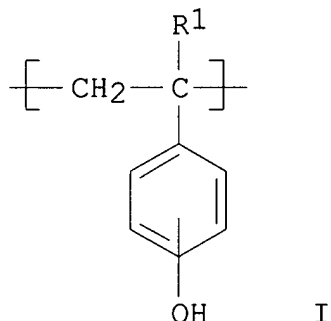
IT **259528-63-7P 259528-65-9P 259528-66-0P**
259528-67-1P
(chem. amplification-type **photoresist** contg. acrylic
polymer and photoacid generator)

IT 84563-54-2 171292-12-9
(chem. amplification-type **photoresist** contg. acrylic
polymer and photoacid generator)

L46 ANSWER 7 OF 12 HCA COPYRIGHT 2005 ACS on STN
128:121743 **Negative-working** radiation-sensitive
resist composition. Iwanaga, Shinichirou; Ikesaki, Yoji;

Ota, Yoshiji; Tanabe, Takaki (Japan Synthetic Rubber Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 09325492 A2 19971216 Heisei, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-143186 19960605.

GI



AB The title resin compn. contains an alkali-sol. copolymer having repeating units I and $\text{CH}_2\text{CR}_2[\text{CONHCH}_2\text{O}(\text{R}_3\text{O})_n\text{R}_4]$ ($\text{R}_1, \text{R}_2 = \text{H}$ or Me ; $\text{R}_3 = \text{C}_1\text{-4 alkylene, C}_2\text{-4 alkylidene}$; $\text{R}_4 = \text{H, C}_1\text{-4 (halogenated) alkyl}$; $n = 0\text{-}5$) and a radiation-sensitive acid-generating agent. The compn. adaptable to far IR rays, x-ray, and short wavelength radiations shows high photosensitivity, developability, and dimensional stability and provides high resoln. **resist** patterns with good profile.

IT **201736-77-8DP**, p-Acetoxystyrene-N-methylolacrylamide copolymer, hydrolyzed **201736-80-3P**, 2-Hydroxyethyl acrylate-p-isopropenylphenol-N-methoxymethylacrylamide copolymer **201736-83-6P**, 2-Hydroxyethyl acrylate-p-isopropenylphenol-N-methoxymethylacrylamide-styrene copolymer **201736-86-9P**, p-Hydroxystyrene-N-methoxymethylacrylamide copolymer (**resist** compn. contg. alkali-sol. copolymer comprising hydroxystyrene and acrylamide deriv.)

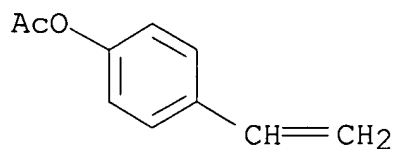
RN 201736-77-8 HCA

CN 2-Propenamide, N-(hydroxymethyl)-, polymer with 4-ethenylphenyl acetate (9CI) (CA INDEX NAME)

CM 1

CRN 2628-16-2

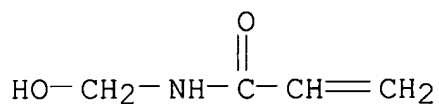
CMF C10 H10 O2



CM 2

CRN 924-42-5

CMF C4 H7 N O2



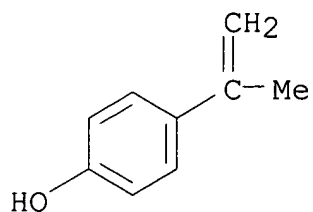
RN 201736-80-3 HCA

CN 2-Propenoic acid, 2-hydroxyethyl ester, polymer with
 N-(methoxymethyl)-2-propenamide and 4-(1-methylethenyl)phenol (9CI)
 (CA INDEX NAME)

CM 1

CRN 4286-23-1

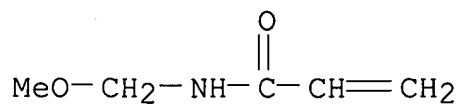
CMF C9 H10 O



CM 2

CRN 3644-11-9

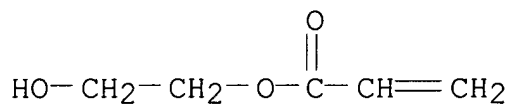
CMF C5 H9 N O2



CM 3

CRN 818-61-1

CMF C5 H8 O3



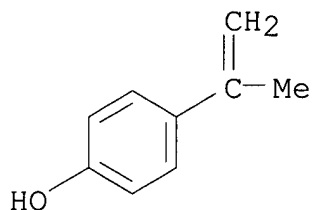
RN 201736-83-6 HCA

CN 2-Propenoic acid, 2-hydroxyethyl ester, polymer with ethenylbenzene,
N-(methoxymethyl)-2-propenamide and 4-(1-methylethenyl)phenol (9CI)
(CA INDEX NAME)

CM 1

CRN 4286-23-1

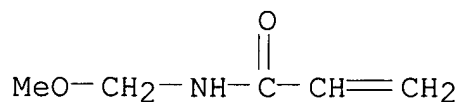
CMF C9 H10 O



CM 2

CRN 3644-11-9

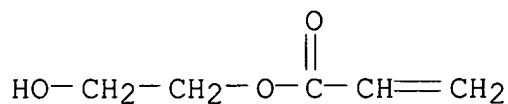
CMF C5 H9 N O2



CM 3

CRN 818-61-1

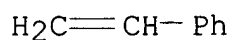
CMF C5 H8 O3



CM 4

CRN 100-42-5

CMF C8 H8



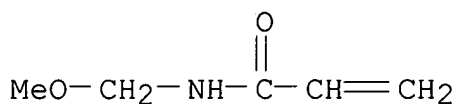
RN 201736-86-9 HCA

CN 2-Propenamide, N-(methoxymethyl)-, polymer with 4-ethenylphenol
(9CI) (CA INDEX NAME)

CM 1

CRN 3644-11-9

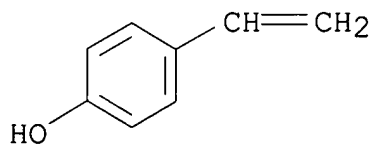
CMF C5 H9 N O2



CM 2

CRN 2628-17-3

CMF C8 H8 O



IC ICM G03F007-038

ICS G03F007-004; H01L021-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)

Section cross-reference(s): 37

ST hydroxystyrene acrylamide copolymer radiation sensitive
resist

IT **Resists**

(**neg.-working** radiation-sensitive;
resist compn. contg. alkali-sol. copolymer comprising
hydroxystyrene and acrylamide deriv.)

IT **201736-77-8DP**, p-Acetoxystyrene-N-methylolacrylamide
copolymer, hydrolyzed **201736-80-3P**, 2-Hydroxyethyl
acrylate-p-isopropenylphenol-N-methoxymethylacrylamide copolymer
201736-83-6P, 2-Hydroxyethyl acrylate-p-isopropenylphenol-N-
methoxymethylacrylamide-styrene copolymer **201736-86-9P**,
p-Hydroxystyrene-N-methoxymethylacrylamide copolymer
(**resist** compn. contg. alkali-sol. copolymer comprising
hydroxystyrene and acrylamide deriv.)

L46 ANSWER 8 OF 12 HCA COPYRIGHT 2005 ACS on STN

116:13375 Heat-resistant photosensitive resin compositions. Tazawa,
Kenji; Sato, Hiromitsu (Tokyo Ohka Kogyo Co., Ltd., Japan). Jpn.
Kokai Tokkyo Koho JP 03137648 A2 19910612 Heisei, 9 pp. (Japanese).
CODEN: JKXXAF. APPLICATION: JP 1989-274996 19891024.

AB The title compns consist of (a) copolymers of compds. CH₂:CXCONHYOZ
(X = H, Me; Y = C1-4 alkylene; Z = C1-4 alkyl, benzyl) 10-30,
carboxy-contg. ethylenic compd. 10-30, and copolymerizable ethylenic
compd. 40-80 wt.%; (b) epoxylated triazine, (c) photopolymg.
monomer; (d) photopolymn. initiator; and (e) solid powder. These
photoresists provide patterns with high heat resistance,
layer adhesion, and resistance to chems. and useful as solder
resists, etching **resists**, and plating
resists. Thus, a copolymer was prepd. by reaction of Me
methacrylate 40, styrene 20, methacrylic acid 20,
N-isobutoxymethylacrylamide 20, and radical polymn. initiator 2
parts. A compn. contg. this copolymer 100, tri(2,3-
epoxypropyl)isocyanurate 40, trimethylolpropane triacrylate 30,
diethylthioxanthone 3, Irgacure-651 4, Aerosil #200 6, and silicone
antifoaming agent 2 parts was applied on 1 side of a Cu-coated
circuit board, dried, applied on the other side, dried and cooled.
Exposure to UV through **neg.** mask, development with 1.5%
Na₂CO₃, and curing at 140.degree. for 60 min gave solder
resist pattern, which showed high resistance to immersion in
solder bath or boiling CH₂Cl₂.

IT **118212-57-0**

(**photoresists** contg., for printed circuit fabrication)

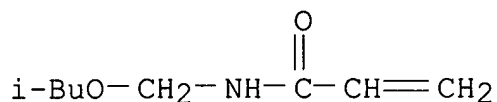
RN 118212-57-0 HCA

CN 2-Propenoic acid, 2-methyl-, polymer with ethenylbenzene, methyl
2-methyl-2-propenoate and N-[(2-methylpropoxy)methyl]-2-propenamide
(9CI) (CA INDEX NAME)

CM 1

CRN 16669-59-3

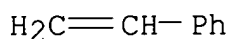
CMF C8 H15 N O2



CM 2

CRN 100-42-5

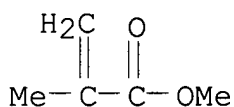
CMF C8 H8



CM 3

CRN 80-62-6

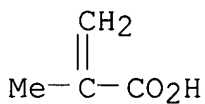
CMF C5 H8 O2



CM 4

CRN 79-41-4

CMF C4 H6 O2



IC ICM G03F007-033

ICS G03F007-027

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)
Section cross-reference(s): 38

ST **photoresist** printed circuit fabrication; solder
resist pattern **photoresist**

IT **Resists**

(photo-, for printed circuit fabrication, copolymer for)

IT Electric circuits

(printed, **photoresists** for fabrication of)
IT 2451-62-9 **118212-57-0**
(**photoresists** contg., for printed circuit fabrication)

L46 ANSWER 9 OF 12 HCA COPYRIGHT 2005 ACS on STN

113:68390 Radiation-hardenable mixture and **negative-working** radiation-sensitive **resist** material for high energy radiation therefrom. Dammel, Ralph; Doessel, Karl Friedrich; Lingnau, Juergen; Theis, Juergen (Hoechst A.-G., Fed. Rep. Ger.). Ger. Offen. DE 3821584 A1 19891228, 9 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1988-3821584 19880625.

AB A **neg.-working** radiation-sensitive **resist** material having a high sensitivity and improved resoln. and also a high etch resistance after development is composed of an acid-forming compd. that contains an arom.-bound Cl or Br atom and shows a pKa value of .ltoreq.12 and a substance that is acid hardenable. The material is esp. useful for forming **resist** patterns by electron beams or x-rays. Thus, a compn. that gave defect-free images upon imagewise exposure with x rays contained a cresol-HCHO novolak, tetrabromo-Bisphenol A, Cymel 116 (polyalkoxymethylmelamine), and propylene glycol Me ether acetate.

IT **128295-95-4**
(**neg.-working** radiation-hardenable **resists** contg. acid-forming compd. and)

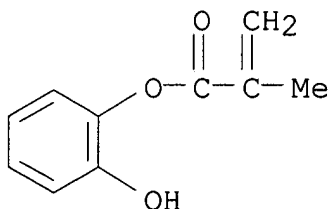
RN 128295-95-4 HCA

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyphenyl ester, polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 29925-70-0

CMF C10 H10 O3

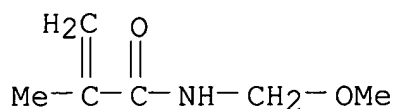


CM 2

CRN 3644-12-0

CMF C6 H11 N O2

= 5234791



- IC ICM G03F007-10
ICS G03C001-68
- CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST **neg resist** x ray electron; acid former
neg resist; hardenable compd **neg resist**
- IT Phenolic resins, uses and miscellaneous
(**neg.-working** radiation-sensitive
resists contg. acid-forming compd. and acid-hardenable material and)
- IT **Resists**
(electron-beam, **neg.-working**, contg.
acid-forming compd. and acid-hardenable material)
- IT **Resists**
(x-ray, **neg.-working**, contg. acid-forming
compd. and acid-hardenable material)
- IT 9003-08-1 **128295-95-4** 128427-92-9
(**neg.-working** radiation-hardenable
resists contg. acid-forming compd. and)
- IT 9016-83-5, Cresol-formaldehyde copolymer
(**neg.-working** radiation-sensitive
resists contg. acid-forming compd. and acid-hardenable
compd. and)
- IT 79-94-7, Tetrabromobisphenol A 79-95-8
(**neg.-working** radiation-sensitive
resists contg. acid-hardenable compd. and)
- IT 122288-15-7P, 1,1,1-Tris(3,5-dibromo-4-hydroxyphenyl)ethane
(prepn. and **neg.-working** radiation-sensitive
resists contg. acid-hardenable compd. and)
- L46 ANSWER 10 OF 12 HCA COPYRIGHT 2005 ACS on STN
111:244323 Radiation-sensitive **resist** compositions containing
modified polyurethanes. Noguchi, Hiromichi (Canon K. K., Japan).
Eur. Pat. Appl. EP 307921 A2 19890322, 12 pp. DESIGNATED STATES: R:
AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE. (English).
CODEN: EPXXDW. APPLICATION: EP 1988-115156 19880915. PRIORITY: JP
1987-229492 19870916; JP 1988-159079 19880629.
- AB Title compns. useful as protective **resists** for printed
circuit board manuf. comprise a graft acrylic copolymer having a
no.-av. mol. wt. (.hivin.Mn) .gtoreq.5000 and wt.-av. mol. wt.
(.hivin.Mw) .ltoreq.50,000, a linear acrylic polymer having

.hivin.Mn .gtoreq.5000, .hivin.Mw .ltoreq.350,000, and glass transition temp. .gtoreq.60.degree., an acrylate ester of polyurethane, and a photoinitiator. Thus, 2-hydroxypropyl methacrylate-butoxymethylacrylamide-Me methacrylate graft copolymer (.hivin.Mn 7000, .hivin.Mw 150,000), linear Me methacrylate-iso-Bu methacrylate-butoxymethylacrylamide copolymer (.hivin.Mn 150,000, .hivin.Mw 320,000), HMDI-propylene oxide-THF copolymer 2-hydroxyethyl acrylate ester, benzophenone, p-diethylaminobenzophenone, crystal violet, MEK, and MIBK were mixed, applied to a PET film to a dry thickness of 25 .mu.m, laminated onto a Cu surface of a copper-clad substrate, and irradiated with UV light through a **neg.** mask to form a **resist** on the laminate. Removing the PET film, developing with CCl₃CH₃, and etching with FeCl₃ soln. produced conductor circuits with precision.

IT **123785-99-9D**, crosslinked with linear polyacrylate and polyurethane acrylic esters **123786-00-5D**, crosslinked with graft acrylate polymers and polyurethane acrylic esters **123786-01-6D**, crosslinked with linear polyacrylate and polyurethane acrylic esters **123786-02-7D**, crosslinked with graft acrylate polymers and polyurethane acrylic esters (**photoresists**, UV-sensitive, for printed circuit board manuf.)

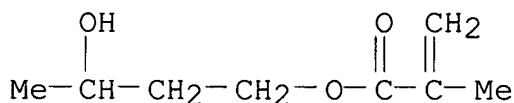
RN 123785-99-9 HCA

CN 2-Propenoic acid, 2-methyl-, 3-hydroxybutyl ester, polymer with N-(hydroxymethyl)-2-propenamide, methyl 2-methyl-2-propenoate and oxiranylmethyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

CM 1

CRN 70103-32-1

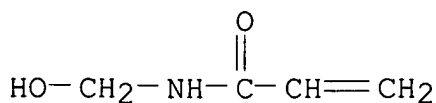
CMF C8 H14 O3



CM 2

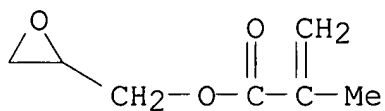
CRN 924-42-5

CMF C4 H7 N O2



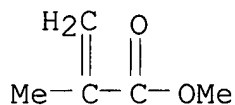
CM 3

CRN 106-91-2
CMF C7 H10 O3



CM 4

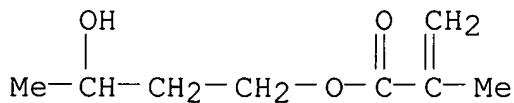
CRN 80-62-6
CMF C5 H8 O2



RN 123786-00-5 HCA
CN 2-Propenoic acid, 2-methyl-, 3-hydroxybutyl ester, polymer with
N-(hydroxymethyl)-2-propenamide and methyl 2-methyl-2-propenoate
(9CI) (CA INDEX NAME)

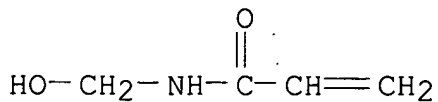
CM 1

CRN 70103-32-1
CMF C8 H14 O3



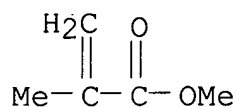
CM 2

CRN 924-42-5
CMF C4 H7 N O2



CM 3

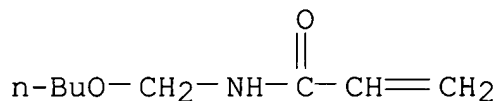
CRN 80-62-6
CMF C5 H8 O2



RN 123786-01-6 HCA
CN 2-Propenoic acid, 2-methyl-, 2-hydroxypropyl ester, polymer with
N-(butoxymethyl)-2-propenamide and methyl 2-methyl-2-propenoate,
graft (9CI) (CA INDEX NAME)

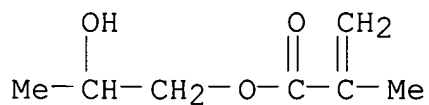
CM 1

CRN 1852-16-0
CMF C8 H15 N O2



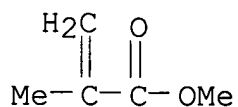
CM 2

CRN 923-26-2
CMF C7 H12 O3



CM 3

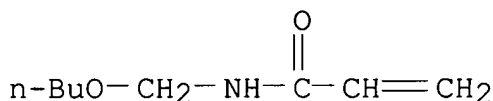
CRN 80-62-6
CMF C5 H8 O2



RN 123786-02-7 HCA
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
 N-(butoxymethyl)-2-propenamide and 2-methylpropyl
 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

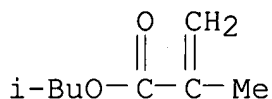
CM 1

CRN 1852-16-0
 CMF C8 H15 N O2



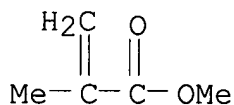
CM 2

CRN 97-86-9
 CMF C8 H14 O2



CM 3

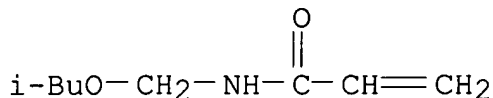
CRN 80-62-6
 CMF C5 H8 O2



IC ICM C08L051-00
 ICS C08L075-04; C08F299-06; G03F007-10
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 Section cross-reference(s): 38, 42
 ST printed circuit board **photoresist**; graft polyacrylate
photoresist circuit board; linear polyacrylate
photoresist circuit board; urethane acrylate
photoresist circuit board; radiation curable
photoresist circuit board; UV curable **photoresist**
 circuit board

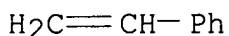
- IT Urethane polymers, compounds
(acrylates, **photoresists**, UV-sensitive, **neg.-working**, for printed circuit board manuf.)
- IT **Resists**
(**photo-**, UV, **neg.-working**,
crosslinked graft acrylate polymers-linear acrylate
polymer-polyurethane acrylate esters)
- IT Electric circuits
(printed, manuf. of, **photoresist** compn. for)
- IT 818-61-1D, esters with hydroxy-contg. polyurethane, crosslinked with
graft acrylate polymers and linear acrylate polymers
123785-99-9D, crosslinked with linear polyacrylate and
polyurethane acrylic esters **123786-00-5D**, crosslinked with
graft acrylate polymers and polyurethane acrylic esters
123786-01-6D, crosslinked with linear polyacrylate and
polyurethane acrylic esters **123786-02-7D**, crosslinked with
graft acrylate polymers and polyurethane acrylic esters
123786-03-8D, esters with hydroxyethyl acrylate-crosslinked with
graft polyacrylate and linear acrylate polymers 123879-90-3D,
esters with 2-hydroxyethyl acrylate-crosslinked with graft
polyacrylate and linear acrylate polymers
(**photoresists**, UV-sensitive, for printed circuit board
manuf.)
- L46 ANSWER 11 OF 12 HCA COPYRIGHT 2005 ACS on STN
95:71076 Dichromated hydrophilic colloid-latex copolymer compositions.
Sutton, Richard C.; Martin, Thomas W. (Eastman Kodak Co. , USA).
U.S. US 4264706 19810428, 13 pp. (English). CODEN: USXXAM.
APPLICATION: US 1980-129523 19800312.
- AB Dichromated gelatin **photoresists** of the **neg.-working** type can be significantly improved by the
incorporation therein of latex dispersions composed of copolymer
particles which are derived from monomers which form water-insol.
homopolymers and a small amt. of monomers which form water-sol.
homopolymers. Thus, a **photoresist** compn. contg. 20% aq.
gelatin 10, an acrylamide-styrene copolymer (10:90) latex (10%
solids) 2, and 20% ammonium dichromate 2 g showed a resoln. of 230
lines/mm, good adhesion to the polyester support, excellent
resistance to dye diffusion, and good washoff.
- IT **78537-70-9**
(**photoresists** contg. ammonium dichromate, gelatin, and
latex dispersions of, with improved properties)
- RN 78537-70-9 HCA
- CN 2-Propenamide, N-[(2-methylpropoxy)methyl]-, polymer with
ethenylbenzene (9CI) (CA INDEX NAME)

CRN 16669-59-3
CMF C8 H15 N O2



CM 2

CRN 100-42-5
CMF C8 H8



IC G03C005-00; B03F005-00

INCL 430274000

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic Processes)

Section cross-reference(s): 76

ST dichromate gelatin **photoresist** polymer latex;
resist photo dichromated gelatin; solid state photoimaging
color filter; array color filter imaging

IT Gelatins, uses and miscellaneous
(**photoresists** compns. contg. dichromate, latex
copolymer dispersions, and, with improved properties)

IT **Resists**
(**photo-**, **neg.-working**, contg.
dichromated gelatin and latex copolymer dispersions, for improved
properties)

IT Semiconductor devices
(radiation-sensitive, fabrication of color filter arrays for,
dichromated gelatin **photoresists** in)

IT 24981-13-3 **78537-70-9**
(**photoresists** contg. ammonium dichromate, gelatin, and
latex dispersions of, with improved properties)

IT 7789-09-5
(**photoresists** contg. gelatin, latex copolymer
dispersion, and, with improved properties)

L46 ANSWER 12 OF 12 HCA COPYRIGHT 2005 ACS on STN

84:172183 **Photoresist** composition. Tsukada, Katsushige;
Isobe, Asao; Ishimaru, Toshiaki; Hayashi, Nobuyuki; Abo, Masahiro
(Hitachi Chemical Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP
50144429 19751120 Showa, 6 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1974-51111 19740510.

AB **Photoresist** compns. useful in manufg. printed circuits contain a photopolymerizable compd. contg. .gtoreq.2 terminal ethylene groups, a linear polymer contg. an N-alkoxymethylcarbamoyl group in the side chain, a photosensitizer, and a compd. contg. .gtoreq.2 epoxy groups. Thus, a photosensitive compn. contg. a N-butoxymethylacrylamide-H₂CCMeCO₂Me-styrene (20:60:20) terpolymer 60, pentaerythritol triacrylate 25,, an epoxy resin (ECN-1280, Chiba Co.) 15, BF₃.H₂NEt 1.0, benzophenone 2.5, Michler's ketone 0.5, p-MeOC₆H₄OH 0.6, MeCOEt 150, and BuOH 50 parts was coated on a Cu-clad laminated plate, dried at room temp. for 10 min and then at 80.degree. for 10 min. The plate was exposed through a **neg** . mask for 2 min with a 3-kW Hg lamp (4000 .mu.W/cm²), heated for 5 min at 80.degree., cooled, sprayed for 1 min with CH₃CCl₃ and then baked for 2 hr at 150.degree.. The **resist** film had the image of the **neg**. mask, and was highly resistant towards common org. solvents, 50% aq. H₂SO₄, and aq. NaOH (pH 12, 70.degree., 100 hr).

IT **59135-24-9**

(photopolymerizable compn. contg. epoxy resin and, for **photoresist**)

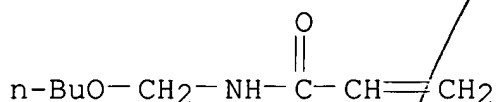
RN 59135-24-9 HCA

CN 2-Propenoic acid, methyl ester, polymer with N-(butoxymethyl)-2-propenamide and ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 1852-16-0

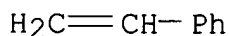
CMF C8 H15 N O2



CM 2

CRN 100-42-5

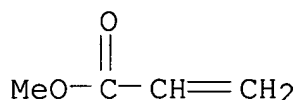
CMF C8 H8



CM 3

CRN 96-33-3

CMF C4 H6 O2

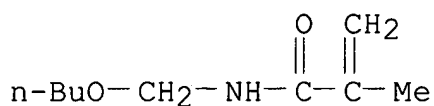


- IC G03C; G03F; B41D; H01L; C08GLK
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic Processes)
 Section cross-reference(s): 76
 ST photopolymerizable acrylate copolymer **photoresist**; elec circuit acrylate copolymer **photoresist**; epoxy resin acrylate copolymer **photoresist**
 IT **Resists**
 (photo-, photopolymerizable compn. contg. methacrylate copolymer and epoxy resin for)
 IT Epoxy resins
 (**photoresists** compn. contg. methacrylate copolymer and, for elec. circuits)
 IT Electric circuits
 (printed, **photoresists** compn. contg. methacrylate copolymer and epoxy resin for)
 IT **59135-24-9**
 (photopolymerizable compn. contg. epoxy resin and, for **photoresist**)
 IT 3524-68-3
 (photopolymerizable compn. contg. epoxy resin, methacrylate copolymer and, for **photoresist**)
 IT 75-23-0 90-94-8 119-61-9, uses and miscellaneous 150-76-5
 (photopolymerizable compn. contg. methacrylate copolymer, epoxy resin and, for **photoresist**)
- => d 147 1-18 cbib abs hitstr hitind
- L47 ANSWER 1 OF 18 HCA COPYRIGHT 2005 ACS on STN
 141:358182 Dye-containing curable composition for manufacture of color filters. Tan, Shiro (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2004286809 A2 20041014, 38 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2003-75633 20030319.
 AB Title compn. comprises (A) an acid group-contg. alkali-sol. binder, (B) an org. solvent-sol. dye, (C) a radiation-sensitive compd., and (D) a polymeric surfactant contg. fluorine and/or silicon atoms, where the binder contains structural units derived from N-substituted (meth)acrylamides.
 IT **773897-96-4 773897-97-5 773897-98-6 773898-00-3**
 (dye-contg. curable compn. for manuf. of color filters)

RN 773897-96-4 HCA
 CN 2-Propenoic acid, 2-methyl-, polymer with N-(butoxymethyl)-2-methyl-
 2-propenamide (9CI) (CA INDEX NAME)

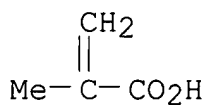
CM 1

CRN 5153-77-5
 CMF C9 H17 N O2



CM 2

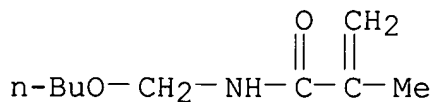
CRN 79-41-4
 CMF C4 H6 O2



RN 773897-97-5 HCA
 CN 2-Propenamide, N-(butoxymethyl)-2-methyl-, polymer with
 4-ethenylphenol (9CI) (CA INDEX NAME)

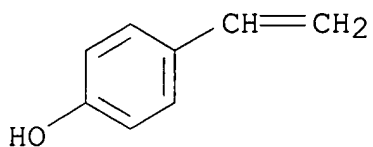
CM 1

CRN 5153-77-5
 CMF C9 H17 N O2



CM 2

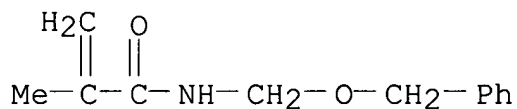
CRN 2628-17-3
 CMF C8 H8 O



RN 773897-98-6 HCA
 CN 2-Propenoic acid, 2-methyl-, polymer with 2-methyl-N-
 [(phenylmethoxy)methyl]-2-propenamide (9CI) (CA INDEX NAME)

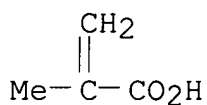
CM 1

CRN 91640-39-0
 CMF C12 H15 N O2



CM 2

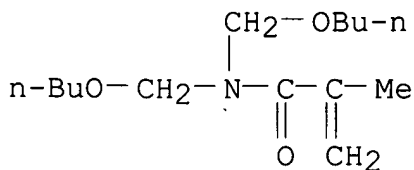
CRN 79-41-4
 CMF C4 H6 O2



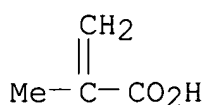
RN 773898-00-3 HCA
 CN 2-Propenoic acid, 2-methyl-, polymer with N,N-bis(butoxymethyl)-2-
 methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 773897-99-7
 CMF C14 H27 N O3



CM 2

CRN 79-41-4
CMF C4 H6 O2

IC ICM G03F007-004
ICS C08F220-58; G02B005-20; G03F007-033
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST dye **photoresist** acrylamide deriv polymer binder color filter; surfactant polymeric **photoresist** color filter
IT Optical filters

Photoresists

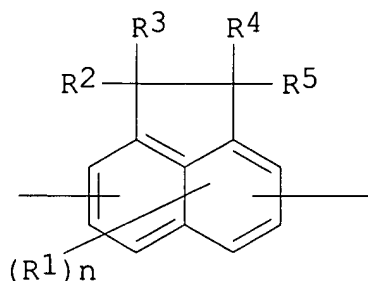
(dye-contg. curable compn. for manuf. of color filters)

IT 105596-69-8 **773897-96-4 773897-97-5**
773897-98-6 773898-00-3 773898-01-4
773898-02-5 773898-03-6

(dye-contg. curable compn. for manuf. of color filters)

L47 ANSWER 2 OF 18 HCA COPYRIGHT 2005 ACS on STN
133:11002 Acenaphthene polymer-containing composition for manufacture of antireflective film. Kawaguchi, Kazuo; Saito, Akio; Ota, Yoshihisa; Iwanaga, Shinichiro (JSR Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000143937 A2 20000526, 14 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1998-325670 19981116.

GI



AB The compn. contains a polymer having a divalent acenaphthene group I (R1 = monovalent atom or group; n = 0-4; R2-5 = OH, monovalent atom or group) and a solvent. The compn. is useful for manuf. of

antireflective films used in photolithog. process esp. in fabrication of highly integrated circuits. The film from the compn. shows high absorbance to KrF excimer laser beam and approx. same refractive index as **resist** layers to have good antireflection characteristics.

IT **270578-41-1P 270578-42-2P 270578-43-3P**

(antireflective film contg.; acenaphthene polymer-contg. compn. for manuf. of antireflective film used in photolithog. process of IC)

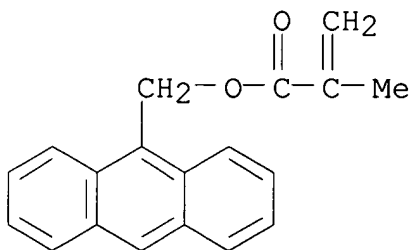
RN 270578-41-1 HCA

CN 2-Propenoic acid, 2-methyl-, 9-anthracenylmethyl ester, polymer with N-(butoxymethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 31645-35-9

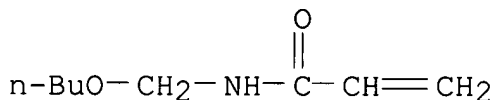
CMF C19 H16 O2



CM 2

CRN 1852-16-0

CMF C8 H15 N O2



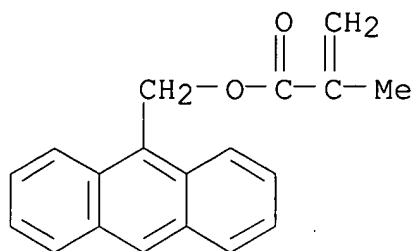
RN 270578-42-2 HCA

CN 2-Propenoic acid, 2-methyl-, 9-anthracenylmethyl ester, polymer with N-(methoxymethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 31645-35-9

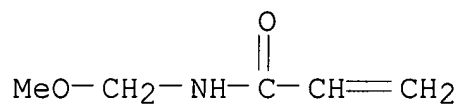
CMF C19 H16 O2



CM 2

CRN 3644-11-9

CMF C5 H9 N O2



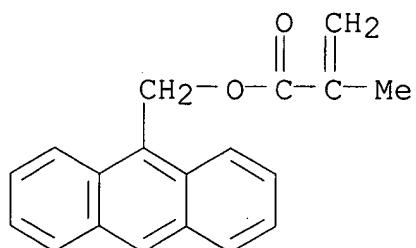
RN 270578-43-3 HCA

CN 2-Propenoic acid, 2-methyl-, 9-anthracenylmethyl ester, polymer with
N-(ethoxymethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 31645-35-9

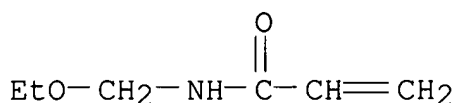
CMF C19 H16 O2



CM 2

CRN 13036-41-4

CMF C6 H11 N O2



IC ICM C08L061-18
 ICS C08J005-18; C08L101-00; C09D133-06; C09D133-24; G03F007-11;
 C08G010-00; C08L033-06; C08L033-24
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 Section cross-reference(s): 42, 76
 IT **270578-41-1P 270578-42-2P 270578-43-3P**
 270583-35-2P, Nikalac N 2702
 (antireflective film contg.; acenaphthene polymer-contg. compn.
 for manuf. of antireflective film used in photolithog. process of
 IC)

L47 ANSWER 3 OF 18 HCA COPYRIGHT 2005 ACS on STN

131:323882 Curable colored resin composition for color display filter.
 Hirose, Masashi; Kashiwazaki, Akio; Shiota, Katsuhiro; Nakazawa,
 Koichiro; Yamashita, Yoshihisa; Yokoyama, Mayumi (Canon K. K.,
 Japan). Jpn. Kokai Tokkyo Koho JP 11302548 A2 19991102 Heisei, 20
 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-111171
 19980421.

AB The invention relates to a curable colored resin compn., suited for
 use in making a blue color filter of a color display panel, wherein
 the blue color is produced by porphyrazine derivs. having .gtoreq.1
 N-contg. arom. ring(s), and optionally with combination of
 phthalocyanine derivs.

IT **176979-02-5**
 (curable colored resin compn. for color display filter)

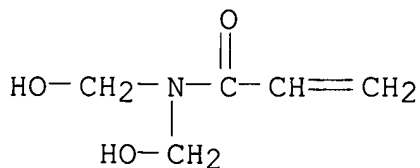
RN 176979-02-5 HCA

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
 N,N-bis(hydroxymethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 17361-90-9

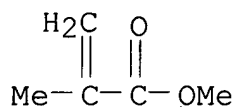
CMF C5 H9 N O3



CM 2

CRN 80-62-6

CMF C5 H8 O2



IC ICM C08L101-00

ICS C08K005-3467; C09B047-00; C09B067-22; C09D011-02; C07D487-22

CC 42-6 (Coatings, Inks, and Related Products)

Section cross-reference(s): 74

IT **Photoresists**

(color; curable colored resin compn. for color display filter)

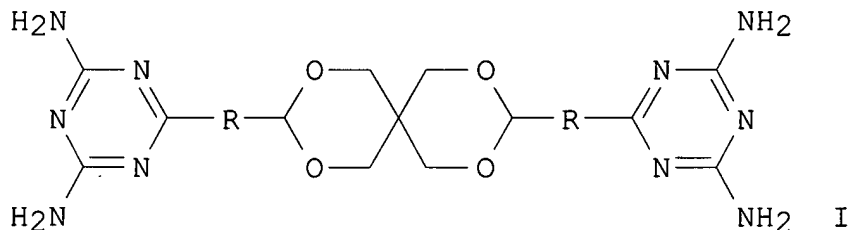
IT **176979-02-5**

(curable colored resin compn. for color display filter)

L47 ANSWER 4 OF 18 HCA COPYRIGHT 2005 ACS on STN

125:100152 Photosolder **resist** compositions developable with water. Nakamura, Shigeo; Yokota, Tadahiko; Mashita, Atsushi (Ajinomoto KK, Japan). Jpn. Kokai Tokkyo Koho JP 08044058 A2 19960216 Heisei, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-175497 19940727.

GI



AB The title compns. contain (A) a photosensitive oligomer prepd. by introduction of .gtoreq.1 onium-contg. group selected from quaternary ammonium, tert-sulfonium, and quaternary phosphonium salts into the residual glycidyl groups of a compd. obtained by addn. of 0.1-0.9 equiv. unsatd. monocarboxylic acid to 1.0 equiv. glycidyl group of a polyfunctional epoxy resin, (B) a guanamine resin prepd. by partial or whole addn. of HCHO to the amino groups

of a guanamine compd. I (R = C2-8 divalent hydrocarbon group) followed by partial or whole alkyl-etherification with a C.1toeq.4 alc. and/or a (co)polymer with wt.-av. mol. wt. having a structural unit CH₂CR₁(CONHCHR₂OR₃) (R₁ = H, Me; R₂ = H, CO₂Me; R₃ = C1-6 hydrocarbon group), and (C) a photopolymn. initiator. The compns. are dilutable and developable with water and provide hardened products with good resistant to soft solder and Ni-plating. Thus, a solder **resist** compn. comprised a photosensitive oligomer prepd. by reacting cresol novolak-type epoxy resin with acrylic acid and then with Me₂N(CH₂)₂OH, CTU-100 (guanamine resin), 2-methyl-1-[4-(methylthio)phenyl]-2-morpholinopropane-1-one, and additives.

IT **65993-46-6**

(photosolder **resists** contg. onium-contg. epoxy resins and guanamine resins for water development)

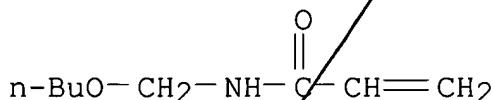
RN 65993-46-6 HCA

CN 2-Propenamide, N-(butoxymethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 1852-16-0

CMF C8 H15 N O2



IC ICM G03F007-027

ICS G03F007-028; G03F007-032; G03F007-033; H05K003-06; H05K003-28

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST photosolder **resist** compn photosensitive oligomer; guanamine resin photosolder **resist** compn; epoxy resin photosolder **resist** compn

IT Phenolic resins, uses

(epoxy, novolak, photosolder **resists** contg. onium-contg. epoxy resins and guanamine resins for water development)

IT Epoxy resins, uses

(phenolic, novolak, photosolder **resists** contg. onium-contg. epoxy resins and guanamine resins for water development)

IT **Resists**

(photo-, photosolder **resists** contg. onium-contg. epoxy resins and guanamine resins for water development)

IT 26571-24-4, Delamine CTU 100

(Delamine CTU 100; photosolder **resists** contg.)

- onium-contg. epoxy resins and guanamine resins for water development)
- IT 71868-10-5
(photopolymn. initiator; photosolder **resists** contg. onium-contg. epoxy resins and guanamine resins for water development)
- IT 60-24-2D, 2-Mercaptoethanol, reaction products with glycidyl methacrylate and epoxy acrylates 79-10-7D, Acrylic acid, reaction products with epoxy resins 106-91-2D, Glycidyl methacrylate, reaction products with 2-Mercaptoethanol and epoxy acrylates 108-01-0D, Dimethylaminoethanol, reaction products with epoxy acrylates 2439-35-2D, reaction products with epoxy acrylates 26571-24-4 **65993-46-6** 178539-05-4D, reaction products with epoxy acrylates
(photosolder **resists** contg. onium-contg. epoxy resins and guanamine resins for water development)
- L47 ANSWER 5 OF 18 HCA COPYRIGHT 2005 ACS on STN
- 123:230124 Energy-curable cyanate/ethylenically unsaturated compositions. McCormick, Fred J.; Drath, David J.; Gorodisher, Ilya; Kropp, Michael A.; Palazzotto, Michael C.; Sahyum, Melville R. V. (Minnesota Mining and Manufacturing Co., USA). PCT Int. Appl. WO 9429369 A1 19941222, 93 pp. DESIGNATED STATES: W: CA, CN, JP, KR, US; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1994-US6756 19940615. PRIORITY: US 1993-78981 19930616.
- AB Interpenetrating polymer networks are formed from a compn. of a polymerizable mixt. comprising cyanate ester and ethylenically unsatd. compds. or of .gtoreq.2 partially polymd. mixed syrups of ethylenically unsatd. monomers, wherein the curative for the cyanate ester is a transition metal-contg. organometallic compd. curing agent and the curative for the free-radically polymerizable monomer is a free-radical generating curing agent or a transition metal-contg. organometallic compd. The polymeric mixts. are useful, for example, in application requiring high performance, such as high temp. performance; in composites, particularly structural composites; structural adhesives; vibration damping material; electronic applications such as printed wiring boards, semiconductor encapsulants and electronic adhesives; **photoresists**; injection molding and prepregs; protective coatings; though self-supporting films; and high performance binders, and printing. A 1:1 mixt. of Quartex 7187 and isobornyl acrylate/isooctyl acrylate blend contg. [CpFe(CO)2]2 and VR 110 azobis(trimethyl)pentane was laminated between steel plates and cured at 105.degree. for 2 min and 180.degree. for 10 min; showing damping range (tan .delta. >0.6) 1-277.degree., vs. 17-60.degree. using conventional Zn octoate catalyst instead of organometallic. A 4:1 blend of isobornyl acrylate/isooctyl acrylate copolymer and poly(Et methacrylate)

syrops contg. radical catalyst and 0.2% crosslinker were photocured; showing damping range (0.1Hz; tan .delta. >0.6) -5 to 15.degree. and 79-91.degree..

IT **78733-25-2 168051-98-7**

(energy-curable cyanate ester/ethylenically unsatd. compns. for interpenetrating polymer networks for adhesives, damping material, and coatings)

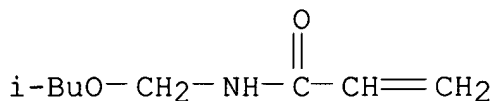
RN 78733-25-2 HCA

CN 2-Propenamide, N-[(2-methylpropoxy)methyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 16669-59-3

CMF C8 H15 N O2



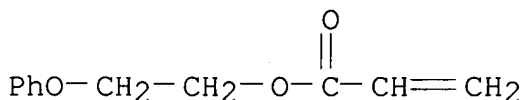
RN 168051-98-7 HCA

CN 2-Propenoic acid, 2-phenoxyethyl ester, polymer with N-[(2-methylpropoxy)methyl]-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 48145-04-6

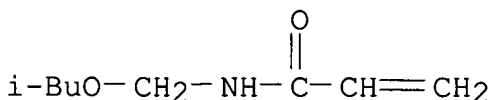
CMF C11 H12 O3



CM 2

CRN 16669-59-3

CMF C8 H15 N O2



IC ICM C08G073-06

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 35, 38, 42, 74

IT **Resists**

(photo-, energy-curable cyanate ester/ethylenically unsatd. compns. for interpenetrating polymer networks for adhesives, damping material, and coatings)

IT 25722-66-1, B 30 47073-92-7, L 10 **78733-25-2**

135507-37-8, Quatrex 7187 148855-34-9 163206-87-9, CN966H90

168051-95-4 168051-96-5 168051-97-6 **168051-98-7**

168191-66-0

(energy-curable cyanate ester/ethylenically unsatd. compns. for interpenetrating polymer networks for adhesives, damping material, and coatings)

L47 ANSWER 6 OF 18 HCA COPYRIGHT 2005 ACS on STN

123:230123 Energy-curable cyanate/ethylenically unsaturated compositions. McCormick, Fred B.; Drath, David J.; Gorodisher, Ilya; Kropp, Michael A.; Palazzotto, Michael C.; Sahyun, Melville R. V. (Minnesota Mining and Manufacturing Co., USA). PCT Int. Appl. WO 9429368 A1 19941222, 69 pp. DESIGNATED STATES: W: CA, CN, JP, KR; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1994-US5240 19940512. PRIORITY: US 1993-78981 19930616.

AB Interpenetrating polymer networks are formed from a compn. of a polymerizable mixt. comprising cyanate ester and ethylenically unsatd. compds. , wherein the curative for the cyanate ester is a transition metal-contg. organometallic compd. curing agent and the curative for the free-radically polymerizable monomer is a free-radical generating curing agent or a transition metal-contg. organometallic compd. The polymeric mixts. are useful, for example, in application requiring high performance, such as high temp. performance; in composites, particularly structural composites; structural adhesives; vibration damping material; electronic applications such as printed wiring boards, semiconductor encapsulants and electronic adhesives; **photoresists**; injection molding and prepregs; protective coatings; though self-supporting films; and high performance binders, and printing. A 1:1 mixt. of Quatrex 7187 and isobornyl acrylate/isooctyl acrylate blend contg. [CpFe(CO)2]2 and azobistrimethylpentane was laminated between steel plates and cured at 105.degree. for 2 min and 180.degree. for 10 min; showing damping range (tan .delta.> 0.6) 1-277.degree., vs. 17-60.degree. using conventional Zn octoate catalyst instead of organometallic.

IT **78733-25-2 168051-98-7**

(energy-curable cyanate ester/ethylenically unsatd. compns. for interpenetrating polymer networks for adhesives, damping material, and coatings)

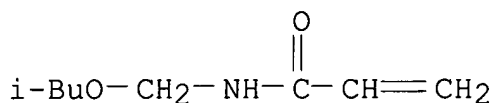
RN 78733-25-2 HCA

CN 2-Propenamide, N-[(2-methylpropoxy)methyl]-, homopolymer (9CI) (CA

INDEX NAME)

CM 1

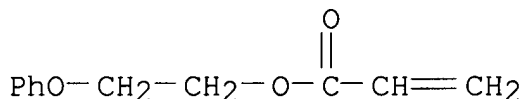
CRN 16669-59-3
 CMF C8 H15 N O2



RN 168051-98-7 HCA
 CN 2-Propenoic acid, 2-phenoxyethyl ester, polymer with
 N-[(2-methylpropoxy)methyl]-2-propenamide (9CI) (CA INDEX NAME)

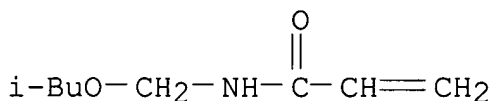
CM 1

CRN 48145-04-6
 CMF C11 H12 O3



CM 2

CRN 16669-59-3
 CMF C8 H15 N O2



IC ICM C08G073-06
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 35, 38, 42, 74

IT **Resists**
 (photo-, energy-curable cyanate ester/ethylenically unsatd.
 compns. for interpenetrating polymer networks for adhesives,
 damping material, and coatings)

IT 25722-66-1 **78733-25-2** 135507-37-8, Quatrex 7187
 148855-34-9 163206-87-9, CN966H90 168051-95-4 168051-96-5
 168051-97-6 **168051-98-7** 168191-66-0
 (energy-curable cyanate ester/ethylenically unsatd. compns. for

interpenetrating polymer networks for adhesives, damping material, and coatings)

L47 ANSWER 7 OF 18 HCA COPYRIGHT 2005 ACS on STN

120:334976 Photosensitive resin compositions useful as nonelectrolytic plating **resists** and solder **resists**. Hagio, Shigeru; Koda, Kazuhiko; Uehara, Shinichi (San Nopco Kk, Japan). Jpn. Kokai Tokkyo Koho JP 05273755 A2 19931022 Heisei, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-102122 19920328.

AB The title compns. contain (a) a compd. prepd. by reacting 1 equiv. epoxy group of a compd. having .gtoreq.2 epoxy groups in its mol. with 0.2-0.8 equiv. unsatd. carboxylic acid, (b) a compd. having .gtoreq.2 ethylenic unsatd. bond in its mol., (c) a photoinitiator, (d) a epoxy-hardener, (e) a hydrophobic silica powder, and (f) a polymer with wt. av. mol. wt. (Mw) 1000-30,000 having a repeating unit CH₂CR₁(CONHCH₂OR₂) [R₁ = H, C₁-3 alkyl; R₂ = H, C₁-6 (hydroxy) alkyl]. The compns. show high resolu. good resistance to nonelectrolytic plating liqs., and improved thermal resistance. Thus, a photosensitive resin compn. comprised a partially esterified epoxy resin prepd. by reacting Epilcon 855 (epoxy resin) with acrylic acid, trimethylolpropane triacrylate, Irgacure 907 (photoinitiator), 2-ethyl-4-methylimidazole, Aerosil R202 (hydrophobic silica), poly(N-butoxymethylacrylamide) (Mw 5000), and additives.

IT **65993-46-6**, Poly(N-butoxymethylacrylamide)
(**photoresist** from)

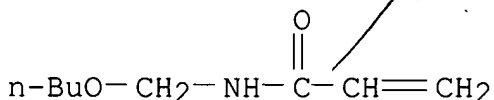
RN 65993-46-6 HCA

CN 2-Propenamide, N-(butoxymethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 1852-16-0

CMF C8 H15 N O2



IC ICM G03F007-038

ICS G03F007-004; G03F007-027; G03F007-028; G03F007-033;
H01L021-027; H05K003-18; H05K003-28

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 76

ST photosensitive resin compn polyacrylamide; epoxy resin ester
photosensitive compn; silica hydrophobic **photoresist**

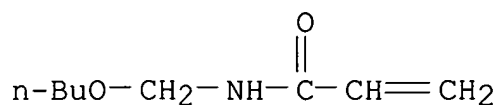
IT Epoxy resins, uses

- (**photoresist** from)
- IT Phenolic resins, uses
(epoxy, novolak, **photoresist** from)
- IT Epoxy resins, uses
(phenolic, novolak, **photoresist** from)
- IT **Resists**
(photo-, useful for nonelectrolytic plating **resist** and solder **resist**)
- IT 931-36-2, 2-Ethyl-4-methylimidazole
(epoxy hardening agent, **photoresist** contg.)
- IT 109944-58-3, Aerosil R 202 112153-70-5, Aerosil R 805
(**photoresist** contg.)
- IT 15625-89-5, Trimethylolpropane triacrylate 17831-71-9,
Tetraethylene glycol diacrylate 29570-58-9, Dipentaerythritol
hexaacrylate **65993-46-6**, Poly(N-butoxymethylacrylamide),
135506-77-3 155050-02-5 155575-63-6
(**photoresist** from)
- L47 ANSWER 8 OF 18 HCA COPYRIGHT 2005 ACS on STN
120:311579 Photosensitive resin compositions useful as nonelectrolytic
plating **resist** and solder **resists**. Hagio,
Shigeru; Koda, Kazuhiko; Uehara, Shinichi (San Nopco Kk, Japan).
Jpn. Kokai Tokkyo Koho JP 05273754 A2 19931022 Heisei, 10 pp.
(Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-102123 19920328.
- AB The title compns. contain (a) a polymer with wt. av. mol. wt. (Mw)
1000-300,000 having a repeating unit CH₂CR₁(CONHCH₂OR₂) [R₁ = H,
C1-3 alkyl; R₂ = H, C1-6 (hydroxy)alkyl], (b) a reactant of a
polyvalent isocyanate having .gtoreq.1 isocyanuric ring with a
(meth)acrylic acid divalent alc. monoester, (c) a compd. having
.gtoreq.2 ethylenic unsatd. bond in its mol., and (d) a
photoinitiator. The compns. show high resolu., good resistance to
nonelectrolytic plating liqs., and useful as solder **resist**
. Thus, a photosensitive resin compn. comprised an urethane
acrylate prepd. from Duranate TPA-100 (hexamethylene diisocyanate
trimer) and 2-hydroxyethyl acrylate, trimethylolpropane triacrylate,
Irgacure 907 (photoinitiator), poly(N-butoxymethylacrylamide) (MW
100,000), and additives.
- IT **40081-39-8 65993-46-6**, Poly(N-
butoxymethylacrylamide)
(**photoresist** from)
- RN 40081-39-8 HCA
- CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
N-(butoxymethyl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 1852-16-0

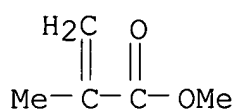
CMF C8 H15 N O2



CM 2

CRN 80-62-6

CMF C5 H8 O2



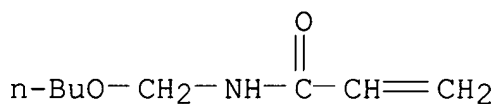
RN 65993-46-6 HCA

CN 2-Propenamide, N-(butoxymethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 1852-16-0

CMF C8 H15 N O2



IC ICM G03F007-038

ICS G03F007-027; G03F007-028; G03F007-037; H01L021-027; H05K003-06;
H05K003-18CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)

Section cross-reference(s): 76

ST photosensitive resin compn polyacrylamide; urethane acrylate
photoresistIT Soldering
(**photoresist** for)IT Urethane polymers, uses
(acrylic, **photoresist** from)IT Coating process
(electroless, metalization, **photoresist** for)IT **Resists**
(photo-, polyacrylamides, for nonelectrolytic plating and
soldering)

IT Acrylic polymers, uses

(polyurethane-, **photoresist** from)
IT 15625-89-5 17831-71-9 29570-58-9, Dipentaerythritol hexaacrylate
40081-39-8 65993-46-6, Poly(N-
butoxymethylacrylamide) 155116-13-5 155116-14-6D, reaction
product with 2-hydroxyethyl methacrylate 155148-07-5D, reaction
product with 2-hydroxypropyl acrylate
(**photoresist** from)

L47 ANSWER 9 OF 18 HCA COPYRIGHT 2005 ACS on STN

120:90839 Visible laser beam-sensitive photopolymerizable imaging
composition. Noguchi, Hiromichi; Ookuma, Norio (Canon Kk, Japan).
Jpn. Kokai Tokkyo Koho JP 05027432 A2 19930205 Heisei, 16 pp.
(Japanese). CODEN: JKXXAF. APPLICATION: JP 1991-167060 19910708.

AB The title compn. comprises (A) a graft copolymer having a no. av.
mol. wt. >5000 and a wt. av. mol. wt. <50000 and is prepd. by adding
side chains having structural units comprising .gtoreq.1 kind(s) of
monomers CH₂:C(R₁)CONHCH₂OR₂ (x) and CH₂:C(R₁)C(:O)R₃N(R₄)₂ (y) (R₁
= H, Me; R₂ = H, C₁-4 alkyl which may have OH; R₃ = C<3 alkyl,
substituted Ph; R₄ = H, Me, Et) to a main chain based on structural
units comprising in the mol. an alkyl methacrylate and .gtoreq.1
kind(s) of monomers selected from dicyclopentenyl group-contg.
acrylic monomers, isobornyl group-contg. acrylic monomers, and
acrylonitrile, (B) a linear polymer having a no. av. mol. wt.
>50000, a wt. av. mol. wt. <350,000, a glass transition temp.
>60.degree., structural units comprising .gtoreq.1 kind(s) of
monomers selected from Me methacrylate, Et methacrylate, iso-Bu
methacrylate, styrene, etc., and structural units comprising
.gtoreq.1 kind(s) of monomers from (x) and (y), (C) a polyfunctional
monomer having .gtoreq.2 ethylenic unsatd. bonds in 1 mol. and
contg. no epoxy group, (D) a polyfunctional monomer which is a
polyfunctional epoxy resin partially esterified with acrylic acid,
(E) .gtoreq.1 radical-generating agent(s) selected from arom.
sulfonium salts, arom. iodonium salts, trihalomethyl triazines, and
camphorquinone, and (F) a sensitizer selected from coumarin,
thioxanthone, styryl styryl ketones, styryl Ph ketones, and benzil.
The compn. is highly sensitive to visible light, has superior
resoln., has sufficient adhesion to all kinds of supports, is
resistant to chems., has durability, and is practical for
patternwise exposure with a visible laser beam.

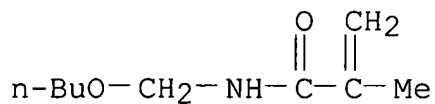
IT **59424-34-9 152728-65-9**
(visible laser beam-sensitive photopolymerizable imaging compn.
contg.)

RN 59424-34-9 HCA

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
N-(butoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

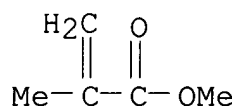
CM 1

CRN 5153-77-5
CMF C9 H17 N O2



CM 2

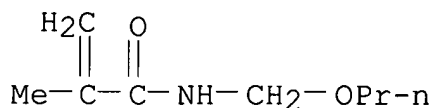
CRN 80-62-6
CMF C5 H8 O2



RN 152728-65-9 HCA
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
2-methyl-N-(propoxymethyl)-2-propenamide (9CI) (CA INDEX NAME)

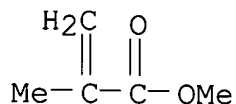
CM 1

CRN 3644-10-8
CMF C8 H15 N O2



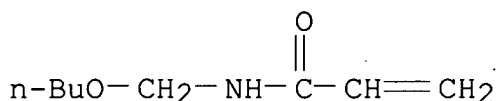
CM 2

CRN 80-62-6
CMF C5 H8 O2



IC ICM G03F007-027
ICS C08F002-50; C08F291-00; C08F299-02; C08G059-18; G03F007-027;
G03F007-029; G03F007-031; G03F007-033; G03F007-038; H01L021-027
ICA C08F002-44

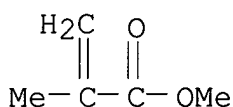
- CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST photopolymerizing imaging compn visible light; visible laser
photopolymerizing imaging compn; **photoresist** visible laser
- IT **Resists**
(photo-, visible laser-sensitive, with high sensitivity and resoln.)
- IT 86-39-5, 2-Chlorothioxanthone 538-58-9 3454-29-3D, reaction product with acrylic acid 3524-68-3, Pentaerythritol triacrylate 10373-78-1, Camphorquinone 30361-83-2 56744-60-6, NK Ester BPE 200 58109-40-3 **59424-34-9** 62886-89-9, Aronix M 8060 63226-13-1 74227-35-3 89452-37-9 93365-36-7 97709-04-1D, Sumidur L, reaction product with hydroxyethyl acrylate 152692-73-4 152692-74-5 152692-75-6 152692-76-7 **152728-65-9** 152728-66-0 152729-00-5
(visible laser beam-sensitive photopolymerizable imaging compn. contg.)
- L47 ANSWER 10 OF 18 HCA COPYRIGHT 2005 ACS on STN
- 119:170515 Photosensitive resin compositions useful for making alkali-soluble **resists**. Hagio, Shigeru; Koda, Kazuhiko; Uehara, Shinichi (San Nopco Kk, Japan). Jpn. Kokai Tokkyo Koho JP 05107760 A2 19930430 Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1991-295183 19911014.
- AB The title resin compns. comprise a binder polymer which can form a film (sol) or swellable in aq. alkali solns., a compd. which generates a strong acid by irradiation with active energy rays, and a polymer having a repeating unit CH₂CR₁(CONHCH₂OR₂) [R₁ = H, C₁-3 = alkyl; R₂ = H, C₁-6 (hydroxy)alkyl]. The compns. are useful for making **resists** developable with aq. alkali solns. and show high photosensitivity and resoln. and good resistance to non-electrolysis plating solns. Thus, a **resist** was prepd. by using cresol-novolak resin, Me methacrylate-Et acrylate-methacrylic acid copolymer, 2,3,4-trihydroxybenzophenone-1,2-naphthoquinonediazido-4-sulfonic acid ester, and N-n-butoxymethylacrylamide-Me methacrylate copolymer.
- IT **40081-39-8**
(**photoresist** contg.)
- RN 40081-39-8 HCA
- CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with N-(butoxymethyl)-2-propenamamide (9CI) (CA INDEX NAME)
- CM 1
- CRN 1852-16-0
- CMF C8 H15 N O2



CM 2

CRN 80-62-6

CMF C5 H8 O2



IC ICM G03F007-027

ICS G03F007-004; G03F007-022; G03F007-029; G03F007-038;
H01L021-027; H05K003-06CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)
Section cross-reference(s): 76ST methylolacrylamide copolymer acid generator **photoresist**IT Phenolic resins, uses
(novolak, cresol-based, **photoresist** contg.)IT **Resists**
(photo-, contg. strong acid-generator and
alkoxymethyl(meth)acrylamide copolymer)IT 83197-54-0 84522-08-7
(acid generator, **photoresist** contg.)IT 9011-13-6, Maleic anhydride-styrene copolymer 25133-97-5, Ethyl
acrylate-methacrylic acid-methyl methacrylate copolymer
40081-39-8
(**photoresist** contg.)

5614351

L47 ANSWER 11 OF 18 HCA COPYRIGHT 2005 ACS on STN

114:33154 Radiation-hardenable mixture and radiation-sensitive recording
material for high energy radiation therefrom. Dammel, Ralph;
Lingnan, Juergen; Pawlowski, Georg; Theis, Juergen (Hoechst A.-G.,
Germany). Ger. Offen. DE 3907953 A1 19900913, 10 pp. (German).
CODEN: GWXXBX. APPLICATION: DE 1989-3907953 19890311.AB Radiation-hardenable mixts. for the prodn. of recording materials
for use with high-energy radiation are composed of an acid-forming
compd., such as an aliph. compd. that contains a Cl or Br and shows
a pKa of .ltoreq.12, and a compd. that is acid hardenable. The
mixts., which are esp. useful as x-ray **resists**, have a
high sensitivity, improved resolu., and show no image fog after

development. Thus, a Si wafer was overcoated with a soln. contg. a cresol-HCHO novolak (softening 105 to 120.degree.), O-2,2,2-trichloroethyl N-(4-hydroxyphenyl)carbamate, Cymel 1116 (a poly(alkoxymethyl)melamine), and propylene glycol mon-Me ether acetate, dried, imagewise exposed through a mask using synchrotron x-ray radiation, and developed to show a defect-free image with all the details of the mask.

IT **130928-15-3**

(x-ray **resists** contg. acid-forming compd. and)

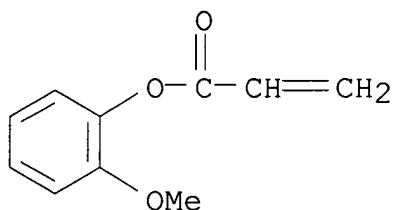
RN 130928-15-3 HCA

CN 2-Propenoic acid, 2-methoxyphenyl ester, polymer with
N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 106993-01-5

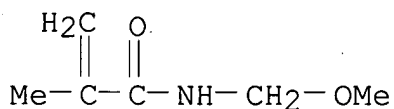
CMF C10 H10 O3



CM 2

CRN 3644-12-0

CMF C6 H11 N O2



IC ICM G03F007-004

ICA G03F007-09; G03F007-16; G03F007-20; G03F007-32; H01L021-312;
C08J003-28

ICI C08J003-24, C08L025-18, C08L033-14, C08L033-24, C08L035-00,
C08L061-00, C08L041-00

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)

ST radiation hardenable mixt acid former; x ray **resist** acid
former

IT Phenolic resins, uses and miscellaneous
(novolak, x-ray **resists** contg. acid-forming compd. and)

IT **Resists**

(x-ray, radiation-hardenable mixts. contg. acid-forming compd. and acid-hardenable compd. for)

IT 9016-83-5, Cresol-formaldehyde copolymer

(novolak, x-ray **resists** contg. acid-forming compd. and)

IT 609-15-4P, Ethyl 2-chloro-3-oxobutyrate 686-92-0P,
1,1,1-Trichloroacetylacetone 687-00-3P 717-10-2P 13176-46-0P,
Ethyl 4-bromo-3-oxobutyrate 64434-81-7P 131170-14-4P
131170-15-5P 131170-16-6P

(prepn. and x-ray **resists** contg. acid-hardenable compd. and)

IT 9003-08-1, Cymel 1116 **130928-15-3** 130960-19-9, Grinolit
RV 1815

(x-ray **resists** contg. acid-forming compd. and)

L47 ANSWER 12 OF 18 HCA COPYRIGHT 2005 ACS on STN

112:243102 Photosensitive resin compositions, and **resist** films therefrom. Yamazaki, Hiroshi; Tsuchiya, Katsunori; Ishimaru, Toshiaki (Hitachi Chemical Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 01309050 A2 19891213 Heisei, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1988-140716 19880608.

AB Resin compns. contain (a) nongaseous ethylenic monomers having .gtoreq.2 C:C bonds, (b) a thermoplastic polymer binder contg. carboxy groups, (c) photopolymn. initiators, and (d) a crosslinking polymer (or copolymer) not contg. carboxy and OH groups and with a wt.-av. mol. wt. of 3000-50,000, and having units of the formula -CH₂CR₁(CONHCH₂OR₂)- (R₁ = H, Me; R₂ = C₁-6 alkyl). The invention includes dry film **resists** having layers of the compns. on substrates. These **resists** and films are stable in storage and do not exude the compns. from the film edges. Thus, N-butoxyacrylamide was polymd. in the presence of a chain transfer agent and ABIN to obtain a PhMe soln. contg. the homopolymer with a mol. wt. of 5300. Glycidyl methacrylate, Epikote 828, Epikote 152 (epoxy resin), Cymel 300, and the above polymer were added to a soln. contg. 20:20:60 2-ethylhexyl methacrylate-Me methacrylate copolymer, 5:8:16 1,4-cyclohexanedimethanol-2-hydroxy acrylate-trimethylhexamethylene diisocyanate copolymer, and other agents. A dry film **photoresist** prepd. by using this compn. was applied on a Cu-coated printed circuit board, and the **resist** layer was developed with aq. Na₂CO₃ and UV cured to obtain a solder mask which showed no anomalies when boiled in water and then soldered using a rosin flux. The developability of the film was unaffected by storage at 40.degree. for 40 days. No exuding from the edge was obsd. when the dry film was stored in wound form at 23.degree. and .ltoreq.70 days.

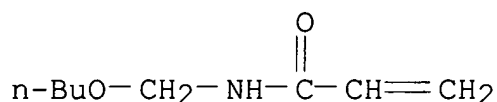
IT **40081-39-8 65993-46-6**, Poly(N-butoxymethyl acrylamide)

(dry-film **photoresists** contg., as crosslinking agent)

RN 40081-39-8 HCA
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
 N-(butoxymethyl)-2-propenamide (9CI) (CA INDEX NAME)

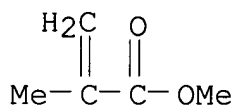
CM 1

CRN 1852-16-0
 CMF C8 H15 N O2



CM 2

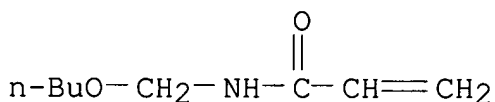
CRN 80-62-6
 CMF C5 H8 O2



RN 65993-46-6 HCA
 CN 2-Propenamide, N-(butoxymethyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 1852-16-0
 CMF C8 H15 N O2



IC ICM G03C001-68
 ICS G03C001-00
 ICA C08F002-44; C08F002-48; C08F020-20
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 Section cross-reference(s): 38
 ST dry film **resist** storage stable; **photoresist**
 solder mask alkali developable
 IT Epoxy resins, uses and miscellaneous
 (dry-film **photoresists** contg.)

- IT Soldering
(masks for, dry-film **photoresists** for prodn. of)
- IT **Resists**
(photo-, dry-film, for solder mask prepn., storage stable)
- IT Electric circuits
(printed, dry-film **resists** as solder mask for manuf. of)
- IT 106-91-2, Glycidyl methacrylate 9003-08-1, Cymel 300 25068-38-6, Epikote 828 25133-98-6, 2-Ethylhexyl acrylate-methacrylic acid-methyl methacrylate copolymer 82400-42-8 84778-06-3, Epikote 152
(dry-film **photoresists** contg.)
- IT **40081-39-8 65993-46-6**, Poly(N-butoxymethyl acrylamide)
(dry-film **photoresists** contg., as crosslinking agent)

L47 ANSWER 13 OF 18 HCA COPYRIGHT 2005 ACS on STN
107:208872 Crosslinkable **resist**. Sugita, Kazuyuki; Ueno, Nobuo; Sasaki, Shigeru; Osada, Shiro (Kuraray Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 62079444 A2 19870411 Showa, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1985-221451 19851003.

AB A crosslinkable **resist** is obtained from a copolymer having the structure repeating unit CH₂CR₁(CONR₂CH₂OR₃) [R₁ = H, lower (halo)alkyl, halo, cyano; R₂ = H, lower alkyl; R₃ = lower (halo)alkyl, aryl, aralkyl]. The **resist** is prep'd. readily and has excellent sensitivity and resolu. Thus, 0.4:99.6 mol N-methoxymethylmethacrylamide-Me methacrylate copolymer was coated on a glass plate, irradiated with an electron beam, and developed to show excellent sensitivity and contrast.

IT **28015-39-6 59424-34-9 111100-85-7**
(**resist** compn. contg.)

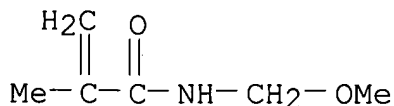
RN 28015-39-6 HCA

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

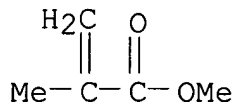
CRN 3644-12-0

CMF C6 H11 N O2



CM 2

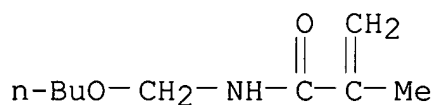
CRN 80-62-6
CMF C5 H8 O2



RN 59424-34-9 HCA
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
N-(butoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

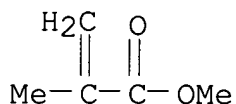
CM 1

CRN 5153-77-5
CMF C9 H17 N O2



CM 2

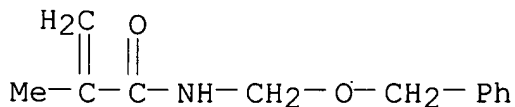
CRN 80-62-6
CMF C5 H8 O2



RN 111100-85-7 HCA
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
2-methyl-N-[(phenylmethoxy)methyl]-2-propenamide (9CI) (CA INDEX
NAME)

CM 1

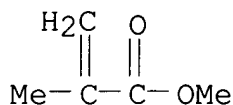
CRN 91640-39-0
CMF C12 H15 N O2



CM 2

CRN 80-62-6

CMF C5 H8 O2



IC ICM G03C001-71

ICS G03C005-16; G03F007-10

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST **resist** methylol methacrylamide deriv copolymer; electron beam **resist** polymethacrylamideIT **Resists**

(electron-beam, pos.-working, curable, methylolmethacrylamide deriv. copolymer in)

IT **28015-39-6 59424-34-9 111100-85-7****(resist** compn. contg.)

L47 ANSWER 14 OF 18 HCA COPYRIGHT 2005 ACS on STN

104:131691 Radiation-polymerizable composition and process for applying markings to a solder **resist** layer. Geissler, Ulrich; Lampas, Heide (Hoechst A.-G., Fed. Rep. Ger.). Eur. Pat. Appl. EP 157374 A2 19851009, 24 pp. DESIGNATED STATES: R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE. (German). CODEN: EPXXDW. APPLICATION: EP 1985-103766 19850328. PRIORITY: DE 1984-3412992 19840406.

AB The title compns., useful in printed circuit prodn., contain compds. contg. .gtoreq.2 terminal vinyl groups, polymeric binders, radical photoinitiators, thermosetting compds., and pigments. Thus, a mixt. of 60:30:10 hexyl methacrylate-methacrylic acid-styrene copolymer (mol. wt. 35,000) 13, polyethylene glycol (mol. wt. 400) dimethacrylate 6.4, curable elastomer (TDI-1,4-butanediol oligomer-adipic acid-glycidyl methacrylate reaction product) 1.6, 9-phenylacridine 0.2, hexakis(methoxymethyl)melamine 0.41, azo dye 0.01, and anthraquinone dye 0.03 parts could be cured by a 5-kW metal halide lamp in 12 s.

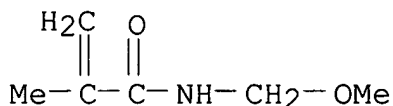
IT **97567-01-6**(inks contg., photocurable, for marking of solder **resists** for printed circuits)

RN 97567-01-6 HCA

CN 2-Propenoic acid, 2-methyl-, hexyl ester, polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

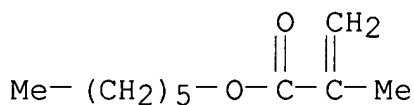
CM 1

CRN 3644-12-0
CMF C6 H11 N O2



CM 2

CRN 142-09-6
CMF C10 H18 O2



IC ICM G03C001-68
ICS G03F007-02; H05K003-34
CC 42-12 (Coatings, Inks, and Related Products)
ST ink photocurable solder **resist**; printed circuit ink
photocurable; crosslinking photochem ink; methacrylate ink
photocurable; melamine resin ink photocurable; polyurethane
methacrylate ink photocurable
IT Urethane polymers, uses and miscellaneous
(methacrylates, in photocurable inks for marking of solder
resists)
IT Crosslinking
(photochem., of inks, for use on solder **resists** for
printed circuits)
IT Electric circuits
(printed, inks for marking of solder **resists** in,
photocurable)
IT **Resists**
(solder, marking of, photocurable inks for)
IT 106-91-2D, reaction products with adipic acid and polyurethanes
124-04-9D, reaction products with glycidyl methacrylate and
polyurethanes 37338-53-7D, reaction products with adipic acid and
glycidyl methacrylate 54633-10-2D, reaction products with adipic
acid and glycidyl methacrylate 58601-54-0
(inks contg, photocurable, for marking of solder **resists**
for printed circuits)
IT 9003-08-1 25852-47-5 97566-97-7 **97567-01-6**
101052-55-5
(inks contg., photocurable, for marking of solder **resists**)

for printed circuits)

L47 ANSWER 15 OF 18 HCA COPYRIGHT 2005 ACS on STN

103:79491 Mixture polymerizable by radiation and copying material produced from it. Geissler, Ulrich (Hoechst A.-G., Fed. Rep. Ger.). Ger. Offen. DE 3329443 A1 19850307, 34 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1983-3329443/19830816.

AB Photopolymerizable, compns. for the prodn. of thermally posthardenable image patterns, esp. solder masks, are composed of a radiation-activatable photointiator and a polymer binder with crosslinkable side chains. These compns., which have the same good keeping qualities as known mixts., produce exposure products that are harder and more resistant to solvents. Thus, a compd. contg., an N-butoxymethylmethacrylamide-hexyl methacrylate-methacrylic acid copolymer (25:50:25) 52, polyethylene glycol 400 dimethacrylate 17.6, hexamethoxymethylmelamine 4, 9-phenylacridine 0.8, a blue azo dye from the coupling product of 2-methoxy-5-acetylamino-N,N-diethylaniline with a 2,4-dinitro-6-chlorobenzenediazonium salt 0.04, 1,4-bis(4-tert-butoxyphenylamino)-5,8-dihydroxyanthraquinone 0.12, butanone 90, and EtOH 50 parts was coated on a biaxially oriented and heat-fixed poly(ethylene terephthalate) film, to give a 100 .mu.m dry layer, overlaid with a polypropylene film, the film removed, and then laminated to a Cu foil-laminated phenolic plate. This laminate was then exposed and spray developed to show 10 full steps and a development time of 110 s vs. 8 and 105 s for a control, contg. a hexyl methacrylate-methacrylic acid-styrene copolymer.

IT **97567-01-6**

(photopolymerizable compns. contg., thermally hardenable, for solder mask fabrication)

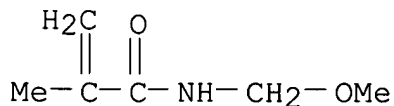
RN 97567-01-6 HCA

CN 2-Propenoic acid, 2-methyl-, hexyl ester, polymer with N-(methoxymethyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 3644-12-0

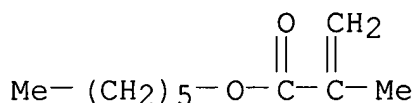
CMF C6 H11 N O2



CM 2

CRN 142-09-6

CMF C10 H18 O2

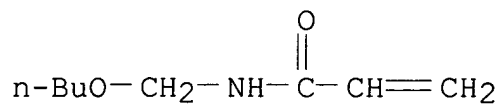


- IC ICM C08L033-26
ICS C08L033-02; C08L033-06; C08J003-28; C08J003-24; C08K005-00;
G03C001-68
- CC 74-4 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)
Section cross-reference(s): 37
- IT **Resists**
(photo-, thermally hardenable photopolymerizable photocomps.
for)
- IT 106-91-2D, reaction products with adipic acid and oligomeric
diisocyanate 124-04-9D, reaction products with glycidyl
methacrylate and oligomeric diisocyanate 26471-62-5D, reaction
products with adipic acid and glycidyl methacrylate and
polytetramethylene ether diol 79295-99-1 92460-68-9 97567-00-5
97567-01-6
(photopolymerizable compns. contg., thermally hardenable, for
solder mask fabrication)
- L47 ANSWER 16 OF 18 HCA COPYRIGHT 2005 ACS on STN
99:185025 Photosensitive composition. (Kuraray Co., Ltd., Japan). Jpn.
Kokai Tokkyo Koho JP 58137834 A2 19830816 Showa, 6 pp. (Japanese).
CODEN: JKXXAF. APPLICATION: JP 1982-20036 19820209.
- AB A photosensitive material contains an org. photosensitizer and
modified poly(vinyl alc.) (PVA) contg. polymer units
-CH₂CR(CONHCH₂OR₁) (R = H, lower alkyl; R₁ = alkyl). The preferred
modified PVA is a sapond. N-methoxymethylacrylamide-vinyl acetate
copolymer or a sapond. N-n-butoxymethylacrylamide-vinyl acetate
copolymer. The compn. has high photosensitivity, and the
insolubilized photosensitive film is more firmly adhered to
substrate resulting in clearer images. Thus, an aq. soln. of
modified PVA (copolymer unit = N-methoxymethylacrylamide 2 mol %,
degree of sapon. = 89 mol %, av. degree of polymn. = 2020) and a
diphenylamine-4-diazonium chloride-formalin condensed resin was
coated on a Zn plate. The plate was UV-irradiated and treated with
aq. chromic acid at 120.degree. to obtain a **resist** image
which after treatment gave a printing plate of high resolu.
- IT **87737-33-5 87737-34-6 87737-35-7**
87737-36-8
(photoimaging compn. contg., for printing plate prepn.)
- RN 87737-33-5 HCA
- CN 2-Propenamide, N-(butoxymethyl)-, polymer with ethenol (9CI) (CA
INDEX NAME)

CM 1

CRN 1852-16-0

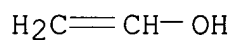
CMF C8 H15 N O2



CM 2

CRN 557-75-5

CMF C2 H4 O



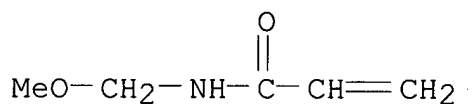
RN 87737-34-6 HCA

CN 2-Propenamide, N-(methoxymethyl)-, polymer with ethenol (9CI) (CA INDEX NAME)

CM 1

CRN 3644-11-9

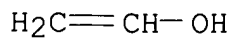
CMF C5 H9 N O2



CM 2

CRN 557-75-5

CMF C2 H4 O

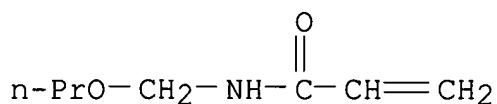


RN 87737-35-7 HCA

CN 2-Propenamide, N-(propoxymethyl)-, polymer with ethenol (9CI) (CA INDEX NAME)

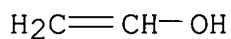
CM 1

CRN 38779-95-2
CMF C7 H13 N O2



CM 2

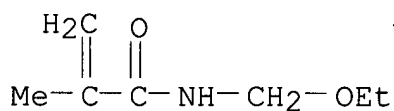
CRN 557-75-5
CMF C2 H4 O



RN 87737-36-8 HCA
CN 2-Propenamide, N-(ethoxymethyl)-2-methyl-, polymer with ethenol
(9CI) (CA INDEX NAME)

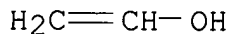
CM 1

CRN 3644-09-5
CMF C7 H13 N O2



CM 2

CRN 557-75-5
CMF C2 H4 O



IC G03C001-71
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)
IT 868-77-9 2142-69-0 14263-94-6 **87737-33-5**
87737-34-6 87737-35-7 87737-36-8
(photoimaging compn. contg., for printing plate prepn.)

L47 ANSWER 17 OF 18 HCA COPYRIGHT 2005 ACS on STN

79:5913 Metal carbonyl photoinitiators for polymerization of vinyl compounds. Barzynski, Helmut; Mueller, Franz Josef; Jun, Mont-Jon; Velic, Milan (Badische Anilin- & Soda-Fabrik AG). Ger. Offen. DE 2142105 19730301, 16 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1971-2142105 19710823.

AB Metal carbonyl compds., e.g. bis(cyclopentadienyliron dicarbonyl) (I) [39278-71-2] were used with chloro compd. cocatalysts, e.g. hexachloroethane (II) [67-72-1], as photoinitiators for the polymn. of vinyl monomers or unsatd. polymer resins used as coating materials or for photoreliefs and printing plates. Thus, irradiation of a 20% monomer soln. containing 5% II and 0.1% I with light of wavelength 470-820 m.m. under Ar gave bis(N-methylolacrylamide) glycol ether polymer [26966-45-0] at efficiency 15.4 vs. 0 for Fe₃(CO)₁₂.

IT **26966-45-0P**

(manuf. of, catalysts for photochem.)

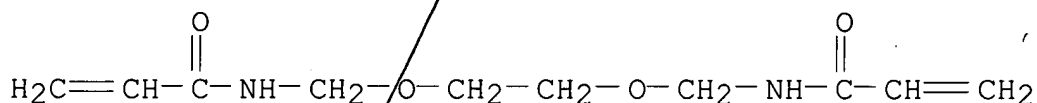
RN 26966-45-0 HCA

CN 2-Propenamide, N,N'-[1,2-ethanediylbis(oxymethylene)]bis-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 21988-92-1

CMF C10 H16 N2 O4



IC C08F

CC 35-4 (Synthetic High Polymers)

Section cross-reference(s): 29, 74

IT Crosslinking catalysts

(metal complexes-chlorides, for polyesters and **photoresists** by light)

IT Printing plates

(**photoresists** for, crosslinking catalysts for use in)

IT Phenolic resins

Polyamides, uses and miscellaneous

(**photoresists**, crosslinking catalysts for use in)

IT 25086-89-9P **26966-45-0P**

(manuf. of, catalysts for photochem.)

IT 25300-64-5 31442-13-4 42120-77-4

(**photoresists**, crosslinking of, catalysts for photochem.)

L47 ANSWER 18 OF 18 HCA COPYRIGHT 2005 ACS on STN

71:51172 Polymeric N-(acyloxymethyl) derivatives of .alpha.,.beta.-unsaturated carboxamides as binders. Dinges, Karl; Mueller, Erwin; Knapp, Karl H.; Berlenbach, Wilhelm (Farbenfabriken Bayer A.-G.). Ger. DE 1296602 19690604, 7 pp. (German). CODEN: GWXXAW. APPLICATION: DE 19620510.

AB Polymers of N-(acyloxymethyl)acrylamides and methacrylamides are used as reactive binders in the printing, padding, and impregnating of textiles. Thus, 250 parts of a 40% aq. polymer dispersion prepd. from Bu acrylate 116, styrene 74, acrylamide 5, N-(acetoxymethyl)acrylamide 5, water 300, Na ClO-16 alkyl sulfate 6, and stearyl alc.-ethylene oxide adduct 6 parts was emulsified with 30% aq. channel black (Philblack A) dispersion 150, 4% aq. Na alginate 100, and white spirit 500 parts, giving an elastic paste of intermediate viscosity which gave a deep black tone in the roller printing of cotton and rayon. The printing had very good washing and rubbing fastness after 5 min. fixing at 120.degree.. Reactive polymers were also prepd. using Me acrylate, acrylonitrile, Et acrylate, Et methacrylate, and butadiene as comonomers, and N-(benzoyloxymethyl)acrylamide, N - (benzoyloxymethyl)methacrylamide, and N-(acetoxymethyl)methacrylamide as reactive components. The polymers were also used as binders in **resist** printing pastes, pad dye baths, and for cellulose fiber fleeces. The crosslinking of these reactive polymers on the substrate gives dyeings and printings with excellent fastness.

IT **24968-85-2**

(stiffening of textiles by pptn. polymn. of)

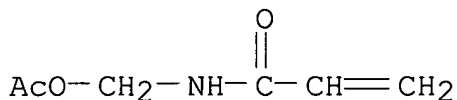
RN 24968-85-2 HCA

CN Acrylamide, N-(hydroxymethyl)-, acetate (ester), polymers (8CI) (CA INDEX NAME)

CM 1

CRN 22657-68-7

CMF C6 H9 N O3



IC D06PMQ; D21H

CC 39 (Textiles)

IT **24968-85-2**

(stiffening of textiles by pptn. polymn. of)